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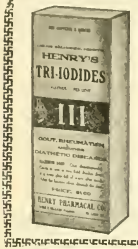

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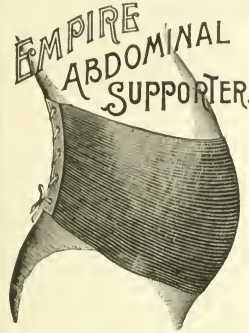

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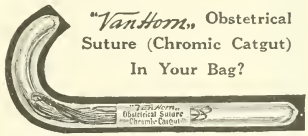

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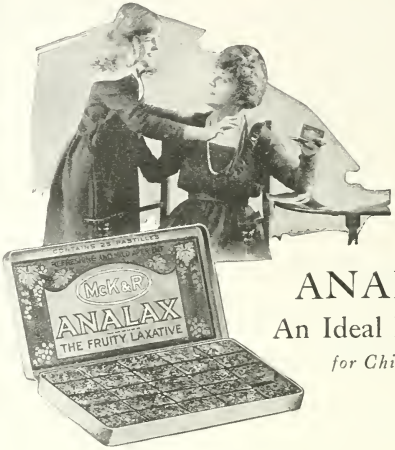

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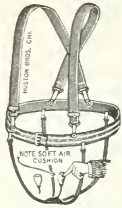

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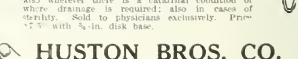

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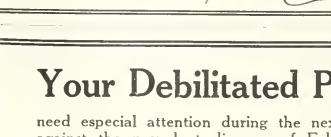

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Vol. 27, No. 11 November, 1920

"In the Supreme Court of Public Opinion"

A Hypothetical Question

IN the states of New York, New Jersey, Illinois, Michigan and, probably, Indiana, the American Association for Labor Legislation intends to introduce, next year, health bills into the state legislatures to which representatives will be elected on November 2.

These health bills contemplate the introduction of compulsory health insurance. It is important, therefore, to elect such members to the legislatures of these five states that can be counted upon to oppose that kind of vicious legislation.

Physicians, as a class, never yet have taken sufficient interest in public life; a fact that had deplorable consequences many times in the passage of laws and ordinances affecting the health of the public and of individuals and which, being designed by laymen or by unpractical dreamers or, worse, by selfish interests, and without the cooperation of medical men, could not possibly serve the best health interests of the people.

All this should, and must, be changed. Physicians are slowly awakening to the fact that they must bestir themselves, that they must manifest an interest in the doings of their state legislatures and of the national congress, and that they must insist on being consulted in the making of all laws and regulations concerning health matters.

One of the most vicious things, practically, is compulsory health insurance, as it has given rise to great injury, injustice and worse in Germany and England, where it has been enforced. It, like its alleged alternative, state medicine, is contrary to American ideas of justice, independence and dignity. Such legislation would open the

doors wide to political jobbery and pernicious practices, it would handicap and enslave the practitioners of the medical profession and would fail utterly to benefit those for whom it is claimed to be intended: name'y, the working people.

The hypothetical question submitted by Dr. John J. A. O'Reilly, chairman of the New York State Association of the Medical and Allied Professions (see p. 725,) demands careful study and consideration. It is clearly up to all of us to see to it that our representatives in the state legislatures and in Congress do not act against the interests of peop'e nor that they are permitted to pass vicious, injurious laws. Doctor O'Reilly has kindly consented to contribute several articles on th's important subject. They should be studied carefully and their lessons should be taken to heart. Then, all physicians shou'd communicate with their congressmen and insist upon honest and beneficent health laws. First of all, though, the physicians residing in the five states mentioned should see to it that they cast their votes only for those candidates who are vouched for by their State medical societies and who can be depended upon to oppose the contemplated pernicious laws. [Read page 782.]

A true critic ought rather to dwell upon excellence than imperfections, to discern the concealed beauties of a writer, and communicate to the world such things as are worth their observation.—Addison.

THE INFLUENCE OF EMOTIONS

The deliberate, teleological study of the emotions, with relation to their influence on physical health, is of fairly modern origin, although older philosophers had dealt with the influence of emotions upon the psyche and the mental health, years ago. In 1904, Albert Abrams associated "the b'ues" directly with splanchnic neurasthenia. Since then, we have had treatises like those by William H. Sadler on "Worry and Nervousness," "The Physiology of Faith and Fear," and a recent one by George Van Ness Dearborn, "The Influence of Joy." As a recent editorial in the *Critic and Guide* expresses it aptly, there is no longer any doubt that strong emotional disturbances, particularly if long continued or frequently repeated, may resu't in organic changes, that is to say in definite organic disease. A strong emotional strain produces a disturbance of the sympathetic system with a perversion (hyper- or hypofunction) of the internal secretions. We then have functional disorders; and it is now denied by but few physicians that long-continued functional disorders may result in organic disease. The last six years, the most catastrophic in the history of the human race, have been responsible for mill.ons of cases of functional and a great number of organic disease (not to mention moral disease), for which future generations will have to pay.

During the world war, the mechanism of emotions, especia'ly suppressed emotions and their influence upon the mental and physical health, not only of soldiers but also of their relatives and friends who had to "carry on" at home, was subjected to much and careful study, the med'cal-journal literature containing numerous excellent articles on the subject, while a number of monographic treatises were issued likewise. Since it is true that forcib'e examples are most illustrative and enlightening, it is self evident that the lessons of the war in this direction proved highly instructive.

It may be that, in the past, we as general practitioners did not pay enough attention to the influence of the emotions upon the course of organic disease and upon their prognosis. The writer has in mind, among many others, two instances in which th's point was brought out with particular force. These instances concerned women approaching middle life or in the climacteric. Both had been ill for years. Both came under the writer's care for serious organic illness necessitating operative interference.

The one, after a major operation, following soon after a difficult confinement, in which the emotions had been strongly strained because of the death of the child, still insisted on the occasion of each visit, that she was better. This despite the fact that she evidently was miserably weak and very, very ill. However, the indomitable courage of this patient in the face of many unfavorable factors not only of physical ill-health but also of extraneous difficulties, undoubtedly aided this patient in recovering her health.

The other patient belonged to that large class of people who "enjoy poor health." It is true, she had been ill for years, more or less, but, during her periods of well-being, she would dwell with grim satisfac-

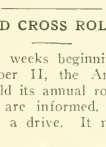
tion upon the "awful condition" in which she had been. During renewed attacks of illness, necessitating various minor operations, this patient never could be brought to acknowledge that she was improving, but constantly insisted upon the "terrible condition" in which she had been.

There is no doubt in our mind that this mental attitude interfered greatly with the patient's recovery.

While all this is not strictly parallel, or germane, to the subject of suppressed emotions, on which an interesting article appears in another department of this issue of CLINICAL MEDICINE, it illustrates the importance on the part of physicians to guide and control, as far as possible, the mentality of patients. More particularly it is essential to avoid and release suppression of emotions. Emotions that find normal expression in manifestations of grief will lose their possibility for harm while those that are suppressed invariably affect the nervous system and, sooner or later, will give rise to functional and even organic disease.

THE RED CROSS ROLL CALL

In the two weeks beginning Armistice Day, November 11, the American Red Cross will hold its annual roll call. This roll call, we are informed, is neither a campaign nor a drive. It merely is the



time set for members to pay their annual dues and thereby renew their membership. It also is a time at which new applications for membership in the American Red Cross are received.

In an article entitled "A Year's Accomplishment", and appearing elsewhere in this issue of CLINICAL MEDICINE, we are told that, one year ago, ten million Americans joined the American Red Cross. It is to be hoped that all of them will renew their membership during this present roll call and, also, that at least one-half of them will induce somebody else to join the Red Cross, and, by paying their dues of $1.00 or more, contribute their share toward the splendid humanitarian work that the American Red Cross is doing.

There can be no doubt about the importance of this work or regarding its necessity. The nations of the world and, indeed, the Red Cross societies of all other nations have come to look to the American Red Cross for encouragement, example and support. Our own Red Cross society has met expectations splendidly. Not only was this done abroad in the war-ravaged countries and in other lands but in our own United States. In truth, the American Red Cross has lived up to its purpose which is, to furnish aid to the sick and wounded of war, to afford relief for the sufferings caused by pestilence, famine, fire, floods and other great national calamities, and to devise and carry on measures for preventing such misfortunes.

Let us all respond to the roll call by joining personally, first; then, for our families; and then, by inducing our friends to support the important work of the American Red Cross.

Recent research seems to show that a considerable number of professional prostitutes are more or less defective mentally; and, as syphilis, alcoholism and mental enfeblement in parents beneath those tendencies or susceptibilities which are often the true underlying cause of moral weakness, we see again the importance of public education as an indirect means of preventing venereal diseases by attacking some of their contributory causes.—U. S. Naval Medical Bulletin.

THE NATIONAL TUBERCULOSIS ASSOCIATION

The National Tuberculosis Association will hold its Christmas-Seal Campaign from December 1 to 11, next. It is to be a tuberculosis Christmas-Seal sale, the seals bearing the double cross adopted by the tuberculosis movement in distinction from the red cross employed by the American Red Cross and formerly used on the red cross seals.

As in former years, the greater part of the proceeds of this Christmas-Seal sale will accrue to the benefit of the tuberculosis work in the respective states. Arrangements have been made by the National Tuberculosis Association for even more aggressive work in the future than had been accomplished in the past. The National Tuberculosis Association stands in the front rank of a fight against disease that is as important and as far reaching as any undertaking can well be. It is true, we have the propaganda against venereal

diseases; we have the cancer campaign, and, no less, we have the work to support that the American Red Cross itself is carrying on against disease and misery everywhere.

However, it would be difficult to find any single disease afflicting mankind that carries in its train more misery and unhappiness, more suffering, both physical and mental, more financial loss and entails greater sacrifices than does tuberculosis. The National Tuberculosis Association has set for its aim the eradication of this scourge of mankind. In its work, physicians are interested primarily even more than are laymen, and they should support and foster this work to their full ability.

At the very least, we believe that, in addition to buying generously of the tuberculosis Christmas seals, every physician should also apply for membership in the National Tuberculosis Association, and thus render his personal support to the work of this association by his money contributions, even though he may not be able to work actively in the tuberculosis campaign.

I'm proof against that word "failure." I've seen behind it. The only failure a man ought to fear is failure in cleaving to the purpose he sees to be best.—George Eliot.

TO PREVENT BLOCKING OF HYPODERMIC NEEDLES

In the last issue of *B-D Splinters*, a small folder issued occasionally by Becton, Dickinson and Company, Rutherford, N. J., Dr. Sidney F. Blanchet, of Saranac Lake, N. Y., complains that the short, half-inch hypodermic needles frequently become obstinately blocked, and inquires how these needles can be kept open.

We have ourselves experienced the same difficulty, despite the meticulous care that we exercised in cleaning the needles after each use and despite the fact that we invariably insert a wire into the needle while it is not in use. The suggestion given by Becton, Dickinson and Company, as to how this difficulty may be overcome, is interesting and may be generally acceptable.

It is suggested to rinse the hypodermic needle with alcohol immediately after its use. Then, insert a wire that has been dipped in mineral oil or vaseline. Small vials containing alcohol and mineral oil, or vaseline, can readily constitute a part of the medicine-case outfit and, with a bundle of wires in the hypodermic kit, preparation for proper care and treatment of the needles is always at hand.

This is a practical suggestion that appeals to us as excellent. We believe that mineral oil will be especially suitable for the purpose because the wires that are fine enough to go into the small, half-inch, 26-gage needles are so slender that they hardly can be inserted into vaseline without bending. However, mineral oil undoubtedly will correct the difficulty satisfactorily.

ONE MORE RAREBIT-NIGHTMARE EXPLODED

"Of the 150,000 physicians in the United States, only 16,000, according to the Internal Revenue Department, have applied for and received permits to prescribe liquor. Judging by the hectic announcements of Prohibition Directors in different sections of the country, indicating the promiscuous writing of liquor prescriptions, we were under the impression that the whole 150,000 must now be getting the writer's cramp signing prescriptions of this kind. Evidently, somebody has been eating too much lobster salad or Welsh rarebit—their talk of physicians abusing their professional privilege sounds like a nightmare in the face of these figures. Another libel on the profession nailed—another rainbow bubble exploded."

This paragraph, which we take from *The Medical Pocket Quarterly*, indicates that but little over ten percent of the physicians in the United States care to prescribe alcohol for their patients. Surely, that is a very low figure and condemns the scareheads, in which certain metropolitan newspapers have indulged to the detriment of physicians, as untrue.

Physicians as a class are law-abiding, decent citizens. They do not break the law deliberately and, since it has become illegal to use alcoholics for beverage purposes, physicians no longer countenance their use in that manner.

Of course, there are some black sheep in our ranks—that goes without saying. However, it is equally true that the blanks of some physicians have been stolen by irresponsible persons and have been filled out over forged signatures.

We are informed that a certain Chicago physician, who is away from Chicago, traveling on an extended vacation, had his alcoholic-prescription blanks stolen from

his office and a great many of these have turned up in the office of the Internal Revenue Service. Manifestly, the physician himself is not to be blamed for all the prescriptions for whisky that were issued apparently by him but actually forged.

Physicians who use, and issue prescriptions for, alcoholics should be careful to keep their blanks under lock and key.

Prohibition Commissioner John F. Kramer, in a recent talk to a crowd of physicians and pharmacists in the Hotel Willard (*"Med. Pocket Quarterly"*) made, among others, these remarks that physicians should heed.

"Today, the good name and prestige of medicine is at stake and it remains now with the profession to say whether this shall be preserved or allowed to be dragged into the mire by a few unscrupulous men who seek only their own selfish ends.

"If medicine and pharmacy are not careful, these associates will make their professions hateful to the women of the home, upon whom they must, in the last analysis, depend for their living. A woman whose husband, son, father, or brother is supplied with liquor prescriptions by a physician, and on which that husband, son, father and brother is made drunk, cannot fail to resent it and cast it up to the physician responsible for her sorrow.

"In her own way and time, she will find a method to strike back at that physician and in the end it is inevitable that he must suffer in loss of practice, prestige, good will and good name. Any physician who imperils all this for a few paltry dollars is unwise and a fool."

Associate with men of good quality, if you esteem your own reputation; for it is better to be alone than in bad company.—George Washington.

DID YOU FALL, BROTHER?

Unless we forget our mythology, Juno was the cause of considerable trouble on High Olympus and, unless we are again sadly mistaken, certain alleged "extracts" of ardent spirits named after her will cause more or less woe (mixed maybe with fleeting gladness) to any members of the profession who may seek to "grasp the shadow of substantial things gone by."

A certain chemical company, located in Baltimore, in a recent circular addressed "To The Medical Profession," offers concentrated extracts of "rye whisky, French brandy and Holland gin," to be dispensed or prescribed to patients for medicinal purposes. The circular assures prospective customers that "the finished preparations contain both the physical and therapeutic properties of the best whisky, brandy or gin—and, if not known to be made extemporaneously, they would never be doubted as of the best distilled products, and of an old age." Further, the circular states: "The time consumed in making the finished product is almost nil; all that is required is, to pour the ingredients into a quart bottle or measure and shake, and the preparation is ready for immediate use."

The "extracts" vary in price from $12 to $18 per dozen—and not less than a dozen bottles will be shipped. The unsophisticated or too-trustful recipient of the circular would naturally imagine that the "Juno" (pronounced U-know?) concentrated extracts will, in some mysterious manner provide the pleasing exhilaration afforded by the absorption of four fingers of spiritus frumenti.

Analyzing the enticing offer, however, and bearing in mind the penalties attached to vending, holding or transporting alcohol suitable for beverage purposes, we are compelled to believe that, though "Juno" may possess a "kick", it will be manifest only after "the ingredients have been shaken in a quart bottle or measure." The most essential ingredient undoubtedly is alcohol, which the members of the medical profession, beguiled by Juno, will of course provide themselves. The color and distinctive flavor of "rye whisky, French brandy and Holland gin" may be conveyed by the "concentrated extracts" but, that will be all. Baldly stated, the doctor is invited to pay $12 for enough material to disguise twelve quarts of alcohol—which he must obtain. Contemplate, if you will, the temperamental condition of William T. H. E. Goat, M. D., of Squishsquash, Wis., or elsewhere, when, after having joyfully (but secretively) conveyed the box of "Juno" from the express office to his home, wrenched off the lid and extracted a bottle of "concentrated extract" of old rye, he reads something like this: "Add the contents of this vial to one quart of grain alcohol, shake well"—and drink hearty!

Offhand, we'll venture the opinion that—minus the alcohol, each box of Juno will yield more concentrated kicks than can be computed. Much highly colored language—concentrated expression—will, we

fear, also be released by the devotees of the Goddess. Concentration is, unquestionably, a good thing. Here is something for the simple mind to work on. U-Know!

Religion does not mean the same thing to everybody. For some, religion demands obedience to the teachings of a particular church. For others, there is the religion of trying to do what is right, and a conception of what is right is derived from countless formative influences, direct and indirect, among which the belief and practice of pious parents is preeminent. But, at any rate, religion means a relation, an obligation, a duty in contradistinction to expediency.—U. S. Naval Medical Bulletin.

ROBBING THE DOCTOR'S BREAD BASKET

Last year, the 46 hospitals in New York not maintained by the city, report that they provided 600,000 persons with free treatment for a total of 1,203,728 treatments, for which neither the beneficiary nor the city paid a cent. Many other cities report similar conditions. If statistics were available from the clinics and hospitals of the entire country, they would show that, despite universal employment at the highest wages the world has ever known in the history of man, from 3,000,000 to 5,000,000 inhabitants of this Utopian nation last year beat the doctor out of his bread and butter by seeking and receiving free medical and surgical treatment at these dispensaries of medical and surgical charity. Figuring an average of two treatments to a case at only $1 a treatment, we have lost $5,000,000 to $8,000,000 that we ought to have had. No other business or profession in the world would stand this leakage for one month without making a concerted effort to check it, and we do scarcely a thing. We surely are strange folks.—[*Medical Pocket Quarterly.*]

BOIL THE BRUSH

On several occasions (Oct. 1918, p. 763, April 1919, p. 293), we referred to instances of anthrax in humans, in which the infection had been intermediated by contaminated shaving brushes which had not been properly cleaned after being purchased. Quite recently, several new instances of this unfortunate occurrence have been recorded.

The Bulletin of the Chicago School of Sanitary Instruction for September 25, 1920, refers to the discovery of a case of human anthrax in a resident of Ridgefield, Illinois, reported recently by the Illinois State Department of Health. In this case, also, it was disclosed that the man had contracted the disease from a new shaving brush. Further investigation by the State Department of Health resulted in tracing the infected articles to a manufacturer in New York City and to a distributor in the city of Chicago. The U. S. Public Health authorities have been investigating, for some time, the spread of anthrax due to infected shaving brushes, and have been endeavoring to force the sterilization of all raw materials before its use by the manufacturer.

It is believed, says the *Bulletin*, that most, if not all, reputable makers are exercising these precautions; the case at Ridgefield, however, is abundant evidence that there is still danger from this source. Therefore, if you buy a new shaving brush, boil it for half an hour before using; or, better still, buy only brushes made by reputable makers and who can guarantee the safety of their product.

SPECIFIC TREATMENT FOR INFLUENZA AND PNEUMONIA

A few years ago, Dr. Francis E. Park published an article on a new curative treatment for pneumonia, following this with the further communication entitled "Treatment of Influenza by an Apparently Specific Method" (*Med. Rec.*, Jan. 10, 1920). Still more recently (*Amer. Med.*, April 1920, p. 214), he declares that, when used in proper conditions, this remedy had never failed to cause a prompt amelioration of the symptoms and a rapid return to health, so that he feels himself justified in claiming for his method the distinction of being a real cure for these conditions.

The treatment consists of the intravenous injection of a solution containing 1 Gram each of soluble phosphate of iron, sodium salicylate (synthetic) and a saturated solution of best beechwood creosote in calcium dissolved in 30 mils of physiologic saline solution. This solution, after being put through a cold porcelain filter, is sealed in glass ampules and sterilized by steam. It is then ready for use. The median basilic vein is usually chosen on account of its accessibility, and the solution is injected very slowly through a 28-gauge needle.

The immediate effect of the dose seems to be some central disturbance. The patient's face will flush and, usually, he will

feel very sick. Frequently there will be a prompt emesis. This effect passes off in a couple of minutes and there is no further disturbance noted. Often, the patient expresses himself as feeling very much better shortly after the treatment, and it makes one wonder if our venerable predecessors were so far wrong after all with their "puke and purge". Doctor Park makes a practice of keeping the kidneys flushed with frequent draughts of water containing small doses of spirit of nitrous ether. The earlier the treatment can be given in a case, the more marked is the effect; if delayed until towards the end, it will do but little good.

Doctor Park presents brief reports of six cases, all possessing the same distinguishing features—a very sick patient, an intravenous injection of his solution given, a prompt amelioration in all symptoms, a normal pulse and temperature in two or three days, and the patient clamoring to get up. He has used this remedy in patients of all ages, from children of 10 to old people of over 90, without ever seeing any harm arise from it. He claims the method to be superior to serum treatment or vaccine treatment.

Consequences are unpitying. Our deeds carry their terrible consequences, quite apart from any fluctuations that went before—consequences that are hardly ever confined to ourselves.—George Eliot.

THE DUCTLESS GLANDS IN RELATION TO ETHICS

The life of every individual is dominated by his ductless glands. They are really our vital organs, the ruling forces of our organisms. The ductless glands determine the physical and temperamental characteristics of every living person, his stature, his instincts, his emotions, his mentality.

One inherits his ductless from his immediate and remote ancestors, and they may be functionally normal or abnormal, healthy or defective. Some persons are born with instincts so good that nothing can make them bad; others are born with instincts so bad that nothing can make them good.

The foregoing considerations, if sound, as probably they are, have a humanitarian value that may well be reckoned with by wardens of penal institutions, legislators, physicians and employers. They help us know our neighbor and ourselves and, toward the former no less than ourselves, to extend the Christian quality of mercy and forbearance.

In ancient times, the sick were possessed of demons, according to the popular belief, and disease was viewed as a visitation from heaven on account of sins committed. All responsibility was laid upon the poor suffering mortal. He got what he deserved. Nobody pitied him for his hard lot. He was rather treated as a pariah. We know how brutally the insane were handled even up to the last century.

In our own days, the same idea is preserved in the harpings of that deluded folkdom whose lay is, that anyone can make of himself precisely what he pleases through force of will—an absurdity, of course.

The newer conception of inherited defects, if popularized, will make us all more charitable towards one another. It will make us see that a freakishly tall man is tall through no fault of his own; that an insane person could not help becoming insane; that a sickly wife is not sickly from choice; that criminals like poets are for the most part born; that a dwarf was not made so by his own perverseness nor that of his ancestors; that a miser is not really to blame for being miserly since it is his nature to be so; that the drunkard is what he is by reason of inherited weakness; that a simpleton is not to be derided; that a crank is unfortunate; that a murderer kills because there is in him a strong instinct to kill; and so on.

It may be said that such doctrine is dangerous; but, that is not true. It need not lead us to the degree of sympathy with criminals allowing them rights to run amuck. Nor will our world be made worse by reason of multiplied evils. Men will continue in much the same way to steal, to lie, to shirk, to browbeat, in obedience to the same inherited impulses which change but slowly. On the other hand, this saner view, it is to be hoped, will lead us less hurriedly and often to blame individuals for frailties due to circumstances over which they have no control, but rather the society that permits defectives to be born and to beget others like themselves generation after generation, to accommodate whom new wings must be added to asylums, poorhouses built, jails enlarged and hospitals provided by the state for its ever more numerous unfortunate charges, all at the expense of grumbling, plodding tax-payers

who, of course, must shoulder the burden.

The remedy? Recent researches indicate that it will be found through closer and more exact study of the endocrine functions, physiologic and pathologic. Much has been learned; far more remains to be discovered.

The writings of the wise are the only riches our posterity cannot squander.—Landor.

ADRENAL FAILURE IN INFLUENZA

According to Sajous, the adrenal, or suprarenal, gland supplies an enzyme to the red corpuscles which enables them to abstract from the air in the pulmonary cells the oxygen needed for existence. To this hormone, he applied the name oxydase, since its purpose apparently is, to promote oxygenation. To function thus is one of the chief duties of the gland.

From this it may be inferred that adrenal failure is respiratory failure, in terms of dyspnea and labored breathing, as clinically observed in asthma, bronchitis and kindred conditions in which these symptoms are dominant. Furthermore, thinks Sajous, death in pneumonia is due primarily to adrenal failure, the common expression of which is "rapid lowering of the arterial tension, marked lividity, edema of the lungs and extreme asthenia".

The view harmonizes with the mortality records wherein the senile form of the disease is conspicuous. The senile are prone to succumb for the reason that, in old age, the adrenals are worn out. Support with the corresponding glandular extract is thus warranted. With increase of the adrenal hormones, we may expect an augmented oxygen-intake and a lessening of the heart-load.

Adrenal extractives are further proposed as a remedy for influenza. Lereboullet and others in France used it during the first epidemic with good results in this disease, which is regarded as an acute neurosis, with more or less paresis of the sympathetic. The offending toxins cripple the adrenals; general oxidation is hindered and we have the familiar asthenia and low blood-pressure observed in influenza attacks. Moreover, the arterioles of nearly all tissues are secondarily dilated, causing circulatory disturbances in various organs.

The agent is advisedly given during the whole disease period and for some weeks afterward. So given, it is said to cut short the acute stage and to hasten convalescence. The whole adrenal substance is best for this purpose, in doses of from 1 10 to 1 4 grain every hour or so.

It is contraindicated in hemoptysis, extreme hypertension, diabetes mellitus and pancreatic disease.

Occasionally, after a first dose, the patient complains of slight tremors, leg weakness or palpitation lasting a few minutes. If repeatedly experienced, these symptoms may be taken to indicate that there is already an ample amount of the glandular hormones in the system.

Someone has suggested the following as a prophylactic against influenza: a capsule containing adrenal gland substance, 2 grains, to provide against oxidase deficiency; thyroid desiccated, 1 grain, to enhance the defensive mechanism; and strychnine, 1 50 grain, to support the adrenal function. The addition of the latter is no doubt well advised. It ought to serve well and, incidentally, we submit that strychnine is one of the best of tonics during convalescence after influenza or other systemic infections associated with fever. But, as the thyroid and adrenal hormones are antagonistic, at least in the sense that the last augments the blood pressure while the first lessens it, the logicalness of combining these two is less apparent. For strengthening the body defenses, nuclein, however, is of the greatest value.

CHEMISTS AS ALLIES OF PHYSICIANS

At a meeting of the American Chemical Society, held early last September, in the Congress Hotel, in Chicago, Dr. A. S. Loevenhart, of the University of Wisconsin, delivered an address entitled "Chemistry's Contribution to Life Sciences."

Doctor Loevenhart declared that every great advance which has been made in chemistry immediately reflects itself in medicine and that it is inconceivable that any great advance can be made in chemistry without medicine being benefited thereby. By way of illustration, he referred to the effect, on medical thought, of the discovery of oxygen and the elucidation of the nature of combustion.

In tracing out the more recent developments in biological oxidization, Doctor

Loevenhart mentioned the great interest now manifested concerning organic peroxides, and indicated the need of more chemical work on this class of substances. Comparatively few organic peroxides have been prepared and comparatively little work has been done on the method of producing these substances. He asserted that the similarity between the oxidizing enzymes and the organic peroxide was noticeable, and that these substances are of interest also as antiseptics. The oxidizing antiseptics include the hypochlorites, the chloramines proving to be the most useful ones during the war; still, Doctor Loevenhart stated that he believed the ideal antiseptic to be one that contains active oxygen rather than one whose oxidizing activity is due to the presence of active chlorine in the molecule. He stated that certain oxidizing substances have the property of stimulating the production of antibodies, also of stimulating phagocytosis and of lessening the local inflammatory reaction. (Work of Flektoen, Arkin and Amberg).

Doctor Loevenhart then discussed the effect, on medicines, of the isolation of the alkaloids in the first half of the last century. He also traced the subsequent history of the elucidation of the constitution of the alkaloids and the rise of chemotherapy. He referred very briefly to the work of Ehrlich and his coworkers and the production of arsphenamine and neoarsphenamine and mentioned the work of Doctors Jacobs and Heidelberger, on the chemical side, and of Doctors Brown and Pearse on the biological side, at the Rockefeller Institute.

"Chemotherapy," he continued, "constitutes one of the greatest fields of endeavor for chemistry and medicine; for success in this field, it is essential that physicians and chemists work in the closest possible harmony and cooperation."

Doctor Loevenhart asserted that the success of the research work in the chemical-warfare service was due to such cooperation between chemists and physicians. As a result, we know more about the biological properties of certain groups of substances used for the destruction of human life than we know about the action of substances that have been used for 2,000 years in the alleviation of human suffering. Finally, the speaker dwelt upon the importance, for the advance of medicine, of chemists entering the field of medicine. "It is usually impossible," he concluded, "to superimpose chemical training upon biological training but easy to accomplish the reverse. The medical curriculum is at present so filled that we must be satisfied with the bare fundamental training in chemistry that the average medical student received. However, for those who are going into medicine in the future, with the set purpose of advancing the subject, we should strongly recommend that they first receive a professional training in either physics or chemistry.

True charity asks no thanks and avoids the limelight.

THE ASPIRIN HABIT

It cannot be denied that acetylsalicylic acid (aspirin) is one of the most useful drugs the chemist has given us in recent years. But, like many another good thing, it has been used overgenerously. Extensively advertised by its original patentees, it came quite early to serve the purposes of self-medication by the laity in this country. Every little ache and pain suggests its use to lay persons. The drug has been used freely. Many are never without it in the household.

It is not uncommon, indeed, for people to consume as much as thirty grains in a day. The fact that it is seldom if ever followed by the visible toxic symptoms following overlarge doses of acetanelid and the other coaltar drugs, or, in other words, is comparatively safe, lends it the more readily to self-medication. The element of fear is not present to deter.

No matter, it is quite probable that acetylsalicylic acid, far from being harmless as milk sugar, is really a dangerous drug when misapplied. It is not a drug that is well tolerated by adrenopathic patients to whom, in truth, it ought never be given. For, it is probably an adrenal poison materially depressing the adrenal function. Kaplan believes that a great many of the fatalities occurring during the recent influenza epidemic were due to the indiscriminate use of this all-too-popular drug. Next to diphtheria, the toxins of influenza are most deleterious in their effect on this part of the endocrine chain. Hence, to resort freely to acetylsalicylic acid is, to add to the damage and so to jeopardize the patient's recovery.

It is well known that intolerance toward the drug is indicated by heartburn. The

person who takes it habitually, as Kaplan says, for colds, headaches, joint pains and myalgia, is apt to recall the heartburn that followed a dose, at least occasionally. The symptom is caused not so much by the acetic acid radicle of the drug as by its depression of the adrenal function. As shown some years ago by Greefe, such depression does give rise to hyperchlorhydria, proof of which is that many cases of the disorder are cured by adrenal feeding.

Charity is kindness of heart manifesting itself in service. It asks no reward.

IT OCCURS TO US THAT—

Hip pockets will be fuller and have buttons, this Fall.

—

Dementia pre-Cox is rampant. Later, doubtless, many otherwise perfectly good citizens will suffer from Coxalgia.

—

Our fear of getting "mixed up with politics" should not prevent our getting interested in legislation, which affects our own interests and the health of the community in which we live.

—

To elect a congressman and, then, promptly to forget him, is simply "passing the buck", as far as new legislation is concerned.

—

Legislators are supposed to represent the people. Unless the people express their interest in, and opinion of new laws, national, state and local, is it any wonder that "special interests" win out?

—

The physician is, and should be, at all times, a man of influence in his community whose opinions are respected and whose advice is sought in matters of good government. Let your voice and that of your medical society be heard in the legislative halls.

—

Every doctor should seek to improve his business methods—that is, his records of house calls, office practice, history records, medicines dispensed and prescribed, and collections. There is no reason why the profession of medicine should not be a more lucrative one. Certainly, the work is hard and the doctor's lot not an easy one.

—

Promptness on our own part in paying bills is not a bad habit. It is a stimulant to better practice.

—

Do you know what your daily expenses are in gasoline, oil, tires, rent, depreciation, repairs, supplies, books, etc., etc.? Is your margin of "net revenue" at the end of the year indicative of the work you have done?

—

Can the practice of medicine be placed on a better business basis? Let's discuss these matters further.

—

About the only avenue of advertising open to the doctor is his "good work". Other and contributing factors may suggest themselves, such as, personal appearance, courtesy, kindness, tact, diplomacy, location, appearance of office, up-to-date apparatus, the latest therapeutic "too!s", initiative in making friends, "mixing" in social and community affairs, attendance at and participation in medical society meetings, writing for publication in medical journals, public activities, thoroughness, good nature, reading, personal habits and character. Much "pro and con" could be said on most all of these items. A further discussion might prove profitable.

—

Speaking of professional advertising, if there be such a thing, aren't fees an indication of the doctor's ability and standing in the profession? Don't be misled by charging too little for your services, except where you know that there is absolute want. Charity is all right in its place and there's more being done in this direction than generally supposed; but, those who can afford it should pay the physicians well and promptly.

—

About the only thing that has not advanced in price during the last few years is membership in the American Red Cross. It is still one dollar.

—

Renew your membership in the Red Cross for another year, during the Fourth Roll Call November 11 to 25.

Leading Articles

In the Supreme Court of Public Opinion

The People, *ex Rel.* Their Agencies of Healing Against The Forces of Unrest

By JOHN J. A. O'REILLY, M. D., Brooklyn, New York

Chairman, New York State Association of the Medical and Allied Professions; Lecturer in Legal Medicine, Brooklyn Law School of the St. Lawrence University; Assistant, Department of Nervous and Mental Diseases, Kings County (N. Y.) Hospital; Member of the New York Bar.

EDITORIAL COMMENT.—Doctor O'Reilly, the author of this communication, is a lawyer as well as a physician. That explains the "hypothetical question" submitted by him. However, even though his message is couched in legal language and in the form of a hypothetical question, that ordinarily objectionable infliction upon medical and other witnesses in court, it probably gains impressiveness thereby. We wish to refer, in connection with it, to the editorial appearing on page 715 of this issue. Also, see page 782.

I HOLD, and so must you, that it is the duty of every medical man, in this troublous period of after-war reconstruction, when the whole world is in the throes of a greater war between the Forces of Order and the Forces of Unrest, to inform himself of the dangers which threaten his country, his order, his home and the people whom he loves and serves as a healer.

Therefore, have I prepared a statement of FACTS which you may assume, but, which I KNOW TO BE TRUE, of my own knowledge and experience in the strenuous 1919-1920 battle in New York State, which resulted in the defeat of 13 out of 13 bad Public-Health Bills, as a result of the awakening of the medical professions to a sense of their responsibility and power and of the value of organized effort; and which brought the PEOPLE, the voting public, to a realization of the menace of vicious, miscalled "Welfare" legislation, and carried to the consciousness of legislators and their leaders a message of warning, couched in terms of VOTES which spelled Defeat, that the PEOPLE would not tolerate the debasement of Public Health and personal well-being through the degradation, by law, of their agencies of healing.

Not one solitary club of invidious criticism has been, or could be, wielded against the practitioners of medicine or their societies, guilds or associations, who waged the campaign of education which prompted the voting public, in the November 1919 elections, to set the seal of their confidence upon their agencies of healing and to imprint the stamp of their disapproval upon those candidates for assembly who set the will of the propagandists of Compulsory Health Insurance and other vicious legislation above the protection of the health-welfare, the self-reliance, the self-respect and the domestic security of the working people of the State of New York.

"What men have done, men may do." READ—and let your sense of proportion, which distinguishes the sane man from the defective, and your sense of common honesty, which distinguishes the good citizen from the bad, be your counsellors. Let your JUDGMENT of the Nation, sick with unrest, be as inspired, as profound, and as conscience-governed, and your SERVICE

as devoted, as self-sacrificing and as effective as they would be in behalf of the humblest of God's creatures who might look to you to stand between his family and death when disease enters the home.

The Premises of the Hypothetical Question

Assume that you are a Doctor whose love for his work has earned him the respect and confidence of his community; that you understand the ordinary meaning of words which is, the "measure of the language of a Statute" and that you are able to interpret and to TEACH the meaning of legislation, prepared ostensibly for the "welfare of the laboring man and advancement of the Brotherhood of Man" but, in reality, designed for his CONTROL in his most vital possession—Health, through the subordination of the agencies of healing under a Compulsory Health-Insurance Act, a State-Medicine Act; a National-Socialization of Medicine Act; a Coercive Medical-Practice (Reregistration) Act; a Right of Search Act (Narcotic and Alcohol) with an Administrative TIN BADGE instead of a Judicial SEARCH WARRANT as authority; a Drugless-Therapy Act; a Chiropractic Act; a Birth-Control Act; a Narcotic-Control Act which would encourage a mushroom growth of sanatoria over night; and so forth.

Assume that you have a large measure of reverence for the sanctity of your profession and a profound sense of the duty you owe to your order and to the people whom it is your duty to serve and to warn against epidemic social disaster as well as epidemic physical disease.

Assume that you were able to impart, to your fellows, a measure of your own enthusiasm, so that their scientific societies, medical, dental and pharmaceutical have joined together, by delegates, to form an embryonic professional guild in your County and encouraged you and your committee, going into the highways and byways and organizing the doctors, dentists and druggists, AS MEDICAL CITIZENS, into Assembly District Chapters of the Professional Guild, and that those fourteen Scientific Societies and TWENTY-THREE Assembly-District Chapters, as integral parts of the GUILD, sponsored a campaign of education among the practitioners, whether attached to scientific societies or UNATTACHED, and also among their people—the Voting Public.

Assume that you and your committee went forth and showed the menace of compulsory Health-Insurance to the practitioners, sending them forth, as missionaries, among their people—in the homes and on the street, in public halls and in the lay press, by exhortation and in debate, so that the people realized what it meant to THEM, in the waste of the money and man power of the state and what the enforced degradation of the agencies of healing into piece-working trades or groups of discontented salary workers would mean.

Assume that, in the course of this campaign, the agencies of healing began to know the power of medical citizenship and to realize that the DOCTOR, by reason of the character of his training and experience, is the best-equipped Teacher of Society, by reason of the intimacy and sanctity of his relations with the People, the most forceful Teacher of Society, and that it is his solemn duty to exercise those faculties, to the end that quarantine against social disaster may be as absolute as against plague.

Assume that, throughout all this Campaign, neither the GUILD, nor one of its Assembly-District Chapters endorsed or opposed any candidate for public office (officially), but that you and your fellows *went to the people with the facts* and the Voting Public sent 10 out of 23 Candidates for the Assembly to the scrap heap on a Compulsory Health-Insurance Issue, so that the work of your own County, together with that of the other 61 Counties in your State, created an ATMOSPHERE which convinced the leaders in politics that a new Civic Force had arisen which threatened Party solidarity, unless the Public Health and the personal well-being of the Citizenry and the integrity of the traditions and institutions and morale of their agencies of healing were made the serious concern of Legislators and NOT a pawn in the game of "Uplift".

Assume that, for years and years, medical men, in County, State and National Societies, had been a negligible quantity and that, through the abuse of medical-society politics and the civic indolence of the average practitioner, the influence of the (un) American Association for Labor Legislation and other arrogant associations for lucrative legislation had subordinated the function of the scientific societies to the purposes of the propagandists from without and the false leaders within.

Assume that you, with more than 500 medical men, had journeyed to the State

Capitol, March 19, 1919, to protests against the Davenport - Donahue Compulsory Health-Insurance Bill, and that you had observed the disgraceful spectacle of the President of the American Medical Association, resplendent in the uniform of a Colonel of the Red Cross, appearing as an ardent proponent of Compulsory Health-Insurance, with all the glamor of his high office of trust in the A. M. A. to fortify his advocacy of Compulsory Health-Insurance, which was still *sub-judice* in the A. M. A.—and, on April 27, 1920, became the object of that body's condemnation.

Assume that you had attended a conference on Compulsory Health-Insurance at the Hotel Astor, New York City, on December 8, 1919, called by the Sub-Committee on Industrial Relations of the National Republican Club, presided over by a member of the Executive Committee of the American Association for Legislation (later, its President) and that you had seen that same President of the A. M. A. cheek-by-jowl with five other members of the Officer body of the A. A. L. L. all seeking to secure an endorsement of the Principle (?) of Compulsory Health-Insurance while damning with faint praise the Davenport Bill, BUT(!) committing the opponents TO SOME KIND OF A BILL and seducing them from the stand that "Compulsory Health-Insurance is as incapable of CONSTRUCTIVE AMENDMENT as is a rotten egg."

Assume that the Senatorial foster-father of the Bill, Frederick M. Davenport, had telegraphed to a State-Medical-Society leader that "the Bill would not come out of committee," intimating that it would not be necessary for the delegation from your County (or others) to appear at the Capitol on the date set for the *pro-forma* hearing.

Assume that you interpreted that telegram for what it was—a trick, and charged your coworkers in the various counties of the State to disregard ANY telegrams and to get to the Capitol, in person or by proxy, so that it would not be possible for the propagandists to go before the People in 1921 and say:

"The Doctors were bitterly opposed to Compulsory Health-Insurance, in 1919, but they studied it INTENSIVELY and, in 1920, they DID NOT APPEAR at the Hearing to oppose the Bill."

Assume that, when you and FOUR others, representing the organized opposition of the Guilds and Associations in the 62 counties of the State DID ATTEND that *pro-forma* hearing, you found the usual (and expected) line-up of the American Association for Labor Legislation (A. A. L. L.) propagandists, reinforced (again, as usual) by the N. Y. Federation of Labor, the Women's Trade Union League (Rose Schneiderman's group) and the Y. W. C. A., which have long been allies in trying to "put across" this socialistic legislation.

Assume that, by reason of the organized opposition and the awakened attitude of the Public mind, you found the Legislature in a mood to give the profession of medicine a respectful and extended hearing and this type of legislation serious consideration instead of quick-fire enactment, so that they sent to the scrap heap 13 out of 13 bad Public-Health bills.

Assume that, subsequently, you learned that the agencies of religion were being subordinated to the purposes of the propagandists and that the rostrum of a church in Flatbush (Brooklyn) was used for a Sunday-evening discourse by the Senatorial foster-father of the Health-Insurance Bill, upon the boon to the "dear people" which welfare legislation, including Compulsory Health-Insurance, would be.

Assume that you attended a conference called by the "Research Department of the Commission on the Church and Social Service of the Federal Council of the Churches of Christ in America" alleged to be "representative of 34 denominations; that it was CALLED in the name of Religion, PACKED in the interests of the A. A. L. L., and HELD, not in a Church or meeting house, but, in the home of a moneyed Foundation; that the Chairman of that meeting tolerated, without rebuke, the time-worn argument of one of the A. A. L. L. campaigners that "the only motive which prompted the medical-men's opposition to the Bill was a mercenary one, stimulated through the sensitiveness of the pocket-book-nerve" and that the whole conference breathed an atmosphere of prejudice in favor of Compulsory Health-Insurance and antagonism to any who dared oppose it, and that the Questionnaire handed to the Conference was identical with the stock arguments of the propagandists in chief, the American Association for Labor Legislation.

Assume that the propagandists had deliberately misquoted the position of the

National Catholic Welfare Council, as endorsing the Compulsory Health-Insurance, which they had prepared and were exploiting, in the face of the fact that the official pronunciamento of the Bishops' Council (Reconstruction Pamph'et No. 1, Jan. 1919, at page 18) expressly says:—

"Any insurance scheme, or any administrative method, that tends to separate the workers into a distinct and dependent class, that offends against their domestic privacy and independence, or that threatens individual self-reliance and self-respect, SHOULD NOT BE TOLERATED."

Assume that, stung to anger by the amount of public interest and indignation which the medical men's campaign of education had aroused the propagandists began to make threats and that, on Oct. 31, 1919, at a meeting of the 11th Assembly District Chapter of the Professional Guild of your County a New York Senator said:—

"If you refuse to make operative a Compulsory Health-Insurance Bill, if passed, your license to practice medicine will be taken from you UNDER THE POLICE POWER OF THE STATE;"

and that, on December 11, 1919, at a debate before the Kings County Dental Society, a Vice-President of the A. A. L. L. said:—

"If you succeed in defeating Compulsory Health-Insurance YOU WILL HAVE TO TAKE STATE MEDICINE."

Assume that, in the 1920-Legislature of your State, a Coercive Medical Practice (Reregistration) Act was introduced which, under the ruling case on the Police Power of the State (Dr. Dent vs. State of West Virginia, U. S. Reports 129, p. 114, year 1889), would have enabled the forces of unrest to make good their threat to beat the agencies of healing into submission or to make them innocuous by terminating their legal existence as Healers, without a right of appeal and with no legal recourse but a Writ of Mandamus which the Courts would have to deny under the ruling in the case of Dr. Dent cited above.

Assume that, in the 1920-Legislature, there was introduced a State-Medicine (Health Centre) Bill which would have made the second threat good and would have resulted in subordinating the practice of the healing art, in all its branches, to the absolute domination of a political department, beginning with a State Superintendent of Health, taking his appointment from a partisan Governor and running clear through to the horse which draws the ambulance, with the power of appointment and removal of every unit in the system vested in Boards of Selectmen, Supervisors, Common Councils or Boards of Estimate in villages, towns and cities of every class, who would operate through District Superintendents and Medical Boards appointed and controlled by them.

Assume that all of these units of destructive legislation were stepping stones to the organization of a National Public Health and Welfare Department with a Secretary in the Cabinet, bill for which will be introduced in the 1921-Congress, and that these State Medicine (Health Centre) plans were designed to be coalesced into the National control of a "combination in restraint of trade" which is at the present time being organized in the City of Chicago through a series of impressively titled organizations with interlocking control and that the national associations of medical men, the A. M. A. and the American College of Surgeons, are in danger of being seduced into making common cause with these Forces of Unrest, unless medical men throughout the country awake to the danger which threatens the integrity and stability of their Professions.

Assume all these things to be true, and that they are true of the writer's knowledge experience and reasoning:

What are You Going to do About It?

The Question

Are You going to inject, into your County, State and National Society, a little medical citizenship which is prepared to spend time, money and energy to defeat the purposes of the Forces and Unrest to prostitute your Order for the benefit of the "Something for Nothing Lads," through the abuse of conscience of the false doctrinaires, the Herren Professoren, the Paid Professional Philanthropists, the Busy-Body Social Surveyors who are the High Priests of the "Worshippers at the shrine of something else than Americanism" and whose "boring from within" was rebuked at the meeting of the A. M. A. at New Orleans, on April 27, 1920?

Are you going to "draw around your scientific societies the sacred circle of REGULARITY" and cry "ANATHEMA" upon all who are not of the membership, or are you going into the highways and byways

and meet and greet and educate your doctors, dentists and druggists, attached and unattached, and send them forth as missionaries among the People, WHO HAVE THE VOTES?

This is not POLITICS. It is the highest type of CIVICS and it is your sacred duty, under the doctrine of *uberrima fides*, which reason and the Law impose upon the Guardian (YOU) and his Ward, the Teacher (YOU) and his pupil, the Trustee (YOU) and his *cestui*, the Lawyer and his Client, the Doctor and his patient.

An *informed* American Public never has gone wrong and never will! It will be my pleasure as well as my duty to inform you, in the columns of this Journal, through the courtesy and heart-interest of its editors, of the knowledge that we have gained of this vicious Legislation in all its phases, in the bitter school of experience during the period, beginning, August 1, 1919, when I began my personal connection with the crusade that has yielded such magnificent results. I have no illusions: I know that the American Association for Labor Legislation is long on financial backing and short on common honesty in the conduct of its campaign.

Only a modicum of its trickery and deliberate deception of the people of this Country is revealed by this hypothetical question.

I have not the slightest anxiety about the ultimate result of this war between the forces of order and the forces of unrest, if the individual practitioners of Medicine in all its branches will give as much thought to the consideration of the facts which I have recited for your assumption and which I will submit for your reading, as you, yourself, would give to a case of measles in one of your charity patients.

WILL YOU DO IT?

The Pneumonias and Their Treatment*

By ALSON BAKER, M. D., Berea, Kentucky
Robinson Hospital (Incorporated) and Training School for Nurses.

EDITORIAL COMMENT.—November is by no means too early a time to prepare for the cases of influenza, pneumonia, and kindred affections, mainly of the respiratory organs, that will be encountered during the coming winter season. Doctor Baker's teachings are sound and may be adopted with advantage.

IN discussing lobar pneumonia, I confine myself to a consideration of those pathological conditions of lung tissue that are caused by the various types of the diplococcus of Fränkel. The cases of undoubted lobar pneumonia that are caused by other organisms, with entire absence of the diplococcus of Fränkel, are usually caused by the bacillus of Pfeiffer and the bacillus of Friedländer. These cases are rare. The diplococcus enters the body through the mouth or through the nose and probably is carried into the deeper structures of the lung by the ordinary act of deep inspiration, in yawning or by violent inspiration following a fit of coughing. It is sufficient to say, that the organism finds its way into the terminal portions of the bronchioles and into the air cells, and that the disease process begins here. The pathological changes in the lung are caused by the multiplication of these bacteria and by attempts, on the part of the protective forces of the body, to destroy them and to counteract their harmful activities, and by the enormous degree of congestion. The reactions and anatomical changes in the four types of the infection do not materially differ from each other except in degree.

Stages and Types

After the successful invasion by the offending organism, the first stage of the pathological process is that of engorgement. According to MacCallum, "The capillaries of the alveolar walls are distended with blood and there exudes into the air cells fluid from the blood, together with leukocytes and red corpuscles. . . . . "The so-called stage of engorgement is rarely seen

*Reprinted from the *Kentucky Medical Journal*, March, 1920.

at autopsy, except at the edges of an advancing consolidation."

In the second stage (red hepatization), an abundant inflammatory exudate has filled the alveoli and clotted. This exudate is made up of a coarse-meshed network of fibrin in which are entangled pneumococci, red blood corpuscles, neutrophiles and desquamated epithelial cells.

In the third stage (grey hepatization), the exudate in the air cells is characterized by the immense number of leukocytes that are losing their forms, and by red cells that are undergoing hemolysis.

Lobular or bronchopneumonia is caused by infection beginning in the terminal bronchioles. It is extremely common as a complication of the various acute infections and is likely to follow any condition that has definitely lowered the body resistance. According to MacCallum, "It is evident that almost every sort of bacteria may be concerned in one or the other of these forms."

The two main points of difference between the pathology of lobar pneumonia and that of lobular pneumonia, are, that lobar pneumonia constitutes the involvement of all, or of the greater portion of one or more lobes, while lobular pneumonia is the involvement of the whole or of portions of various lobules—and that there is a greater tendency to interstitial involvement and to abscess formation in lobular pneumonia.

The Treatment

In the main, the treatment of the two types is the same and it resolves itself naturally under the following heads: Rest, lessening congestion in the affected area, removing the sudden burden placed upon the heart, elimination and stimulation at the proper time—if it be needed.

Rest Secured by Adhesive Plaster

Rest is secured by keeping the patient in bed with his head low and, in lobar pneumonia, by strapping the affected side with adhesive-plaster strips. The plaster must be applied on forced expiration and enough strips used to relieve the pain and make the patient comfortable. The side should be strapped even when there is complete absence of pain. If the disease is bilateral, strap both sides without hesitation. The use of this measure supplies the very first requisite in the treatment of any inflammation; it puts the part at rest and thereby relieves pain, hinders extension and gives opportunity for the working of the processes of cure and repair. As soon as the diagnosis of lobar pneumonia is made, this is the very first remedial measure applied. The adhesive strips are indicated in lobular pneumonia also, when the condition is confined to the lower two lobes on the right side or to the lower lobe on the left side.

I regard the application of the adhesive-plaster strips as the single measure of greatest value in the treatment of lobar pneumonia. I use no blisters, no counter-irritants and no jackets.

To Lessen Congestion

As the blood is carried to the inflamed area by the arteries, it is obvious that, if we can lessen the amount of blood in the arterial system, we lessen the amount of congestion at the same time. When we lessen the amount of blood that goes to the lung, we check, thereby, the advancing consolidation in a greater or less measure, for, very little blood passes through the consolidated area, but the bulk of it stops at the edge of the mass and coagulates, consolidation taking place backward in the direction from which the blood is coming. Therefore, the smaller the volume of blood that comes to this point, the smaller the area of consolidation. Fortunately, we have a very simple drug that lessens the volume of blood in the arterial system to a very marked degree and engorges the venous system in a corresponding degree. The action of the drug is quick, sure and safe, and it is rarely contraindicated. Therefore, I set a higher value upon it than I do upon any other single drug in the treatment of the pneumonias. This drug is, aconitine.

In lobar pneumonia, the danger point is the heart and this is because of two facts; namely, the general bacterial toxemia and the mechanical obstruction to the flow of blood through the lungs. All the blood in the body passes through the pulmonary circulation. The whole blood stream leaves the right ventricle through a single vessel which sends branches to both lungs, and these branches divide and subdivide into millions of arterioles and capillaries, which, eventually, bring their contents together again into two small vessels (the pulmonary veins) and through them into the left auricle. Now, under circumstances of consolidation, of say, half a lung, there is mechanical obstruction to the pulmonary circula-

tion of just 25 percent of the whole blood stream. The pulse rate is accelerated and the blood flows faster through those portions of the lungs where there is no obstruction—and it piles up at the point of consolidation. There is an increased pulse rate without material change in the blood pressure and this rapidity of the pulse serves no useful purpose but is absolutely harmful. The heart is trying to do the impossible, trying to drive one-fourth of all the blood in the body through this consolidated half of a lung. If the pulse rate is increased by 100 percent, the result is the same as trying to force half of the whole blood stream through this consolidated area. Therefor, it is to be wondered at that so many people survive an average attack of pneumonia. To give stimulants early in pneumonia, unless danger of cardiac failure is imminent, is, to intensify this unnecessary heart strain. And, besides, if there are signs of heart failure early in the case, no amount of stimulation is likely to be of benefit.

Aconitine Eases the Heart Strain

This burden of useless and dangerous work can be lifted from the heart in nearly all cases and at any time in the period of consolidation, by the proper administration of the same drug that I recommended to lessen congestion and hinder extension, namely, aconitine. This effect is brought about by lessening the amount of blood passing through the heart and through the pulmonary circulation in a given time, by engorging the venous system and depleting the arterial system in like degree. An approximate effect, as regards the volume of the circulating fluid in the arteries, might be brought about by venesection, but, the patient with pneumonia wants all his red cells and all his white cells; in fact, he wants to keep all his blood if he can keep too much of it from going to the wrong place.

Elimination is brought about and kept up by free catharsis with calomel and podophyllin followed with salines. Plenty of water and other liquids is given along with a nourishing soft diet if the patient's digestive powers are equal to it.

The room temperature is kept at about seventy degrees.

With this method of treatment, the patients being kept in bed with heads low, stimulation is not required in many cases. But, when there are signs of collapse and cardiac failure, camphorated oil given hypodermically is perhaps the best quick stimulant, although, for lasting effect, digitalin is to be preferred.

Routine Treatment Outlined

When an adult patient with pneumonia is admitted to the hospital, the orders for medical treatment, as written on the order sheet, are about as follows: Give aconitine, 1 granule (1-800 gr.) every fifteen minutes until the temperature falls to 100° F., then every half hour until the temperature falls to 99° F. Then stop and give aconitine with digitalin and strychnine, as directed.

While the aconitine is being given, the pulse, temperature and respiration are recorded at hourly intervals.

When the temperature has fallen to 99° F., the aconitine-digitalin-strychnine combination is given thus: 1 granule every half hour until six are given, then, 1 every hour as long as the temperature is below 100° F. If it goes above 100° F., leave off this remedy and give aconitine alone as before.

Each granule contains aconitine, 1-800 gr.; strychnine arsenate, 1-128 gr.; and digitalin 1-64 gr. By giving this combination after the temperature has fallen, we are able to maintain all the aconitine effects except a continuation of temperature reduction. The temperature falls no lower from drug action, the digitalin and strychnine arsenate neutralizing that particular effect of the aconitine.

Pulse, temperature and respiration are still recorded at hourly intervals.

Simultaneously with the aconitine, we begin giving the cathartic of choice, usually calomel and podophyllin, as I have said before.

The aconitine is not given for its effect upon the temperature but for its effect upon the disease process and upon the circulation. The lengthening of the intervals between doses and the addition of digitalin and strychnine arsenate, when the temperature has almost reached the normal, are measures to prevent any toxic effects from the drug. And, these measures do prevent toxic effects.

In pneumonias treated as outlined, crisis is practically unknown. There is a gradual amelioration of all the symptoms, a continuous disappearance of the physical signs of the disease and a visible progress toward recovery from the time when the first indications of a full aconitine effect were ob-

served. Anodynes are required in less than 1 percent of the cases.

A very large majority of all cases seen at the beginning of consolidation are aborted or cured within forty-eight hours or, less often, within twenty-four hours. Nearly all the patients are perfectly comfortable after the first six or eight hours of treatment and remain so until cured. The cough gives very little trouble and it is rare indeed that an expectorant is required. In fact, surprisingly little exudate is raised, the greater portion being absorbed.

Altogether, there are twelve reasons why I advocate this particular treatment for the pneumonias. They are as follows:

1. It is rare that a patient needs an expectorant.
2. Stimulants are seldom needed.
3. There is little or no pain.
4. It is easy to administer this treatment to children.
5. Patients are able to take plenty of nourishment throughout the disease.
6. The average length of the disease is shortened.
7. The severity of the illness is materially lessened.
8. Convalescense is shorter.
9. Very many cases are aborted in the first seventy-two hours.
10. People at both extremes of life commonly recover.
11. There is no crisis.
12. Death from the disease or its complications is extremely rare.

The Pathology of Suppressed Emotions

With Cases

By ALBERT SCHNEIDER, M. D., Lincoln, Nebraska

EDITORIAL COMMENT.—*A study of the emotions, more especially, suppressed emotions is not a frequent topic for discussion in* CLINICAL MEDICINE. *Yet, there is ample cause why the emotions should be included in our various inquiries. Doctor Schneider's case reports are interesting and, probably, throw additional and valuable light on some of our recent and remote experiences. The subject is open for general discussion.*

ONE of the subjects that received special consideration on the part of the earlier philosophers and physiologists was that of human emotions, yet, little or nothing of true scientific worth has been accomplished to date. We have no morphology or physiology of the emotions. The physical expression of the emotions has from time to time received pseudocritical and pseudoscientific consideration; thus, by Bell, Darwin and others. Students of expression as, public readers, actors and speakers, have given attention to the outward signs of the emotions, and physiologists have from time to time attempted to give physiological interpretations of some of more common emotional manifestations, as blushing, sighing, weeping. Students of endocrinology have presented arguments to prove that the secretions of the ductless glands profoundly influence the emotions. Thus, Cannon has recently made a long series of observations on the effects of adrenalin on the emotions of anger, fear and hunger.

The socalled emotional impulses and feelings are, as a rule, of a complex nature. In fact, so complex as to make recognition, identification and classification very difficult if not absolutely impossible. Nerve specialists have left the emotions severely alone, and only a few of the special treatises on nervous disorders give them a mere mention.

Influence of War Emotions

During the World War, unusual opportunities were offered to make observations on the emotional influences and manifestations. The present brief article is a report of a few cases which came under the writers' observation, with suggestions on the development of a science of the morphology and physiology of the emotions.

In some vague manner, it is presumed that the emotions are initiated in the brain centers but activated and dominated by the

sympathetic-nerve system. It is also generally conceded that the endocrine secretions greatly influence the emotions but, just why and how, is not made clear. We do know that serious disturbances of the ductless glands affect the emotions profoundly. Numerous writers have treated of the expression of the emotions and the control of the emotions; still, no one has given any attention to the effects of the suppression of the emotions.

Expressed and Suppressed Emotions

The basic emotions, love, anger, pain and grief, are well known and these have a recognized expression. It is generally conceded that the free and unchecked physical expression of the basic emotions acts as a safety valve, the release of which brings physical and mental relief. Thus, the lower animals give unbridled expression to their emotions. Man alone has acquired the ability to check and more or less effectively surpress his emotions. Suppressing an emotion must not be confused, as is often done, with "feeding" or encouraging an emotion. Many widows and mothers really feed their grief over a lost husband or child. Too many people encourage the emotions of anger and hate. It is true, certain desirable emotions are and should be stimulated and encouraged as, beneficent love in its broadest sense and inclusive of all of the nobler humanitarian motives and emotions.

Giving unbridled expression to an undesirable emotion is universally recognized as a weakness, of which all cultured persons are ashamed during lucid moments. It stamps the individual as lacking in self-control. Self-control is a later evolutional development and the evolutional status of the individual or the race is in exact proportion to the ability to control the undesirable emotions, more especially the emotions of hate, anger and fear. Conversely, the readiness with which the beneficent emotions may be awakened, stimulated and maintained, is directly proportional to the degree of evolutional development of the individual or race. Stolidity must not be confused with a highly developed emotion-controlling power. The savage appears stolid because his emotions are few and primitive. He has practised the masking of the more primitive emotions largely as a means of self protection and of self defense. He does not wish his enemy to know of his fear, nor of his dislike, nor of his hate, nor does he wish to give expression to anger until quite ready for the attack. His beneficent emotions are poorly developed, he makes no special effort to encourage or develop them, and they are furthermore quite easily overcome by the more primitive emotions of hate, fear and anger.

Hate and Anger

That the more primitive emotions (hate and anger) are easily stirred up, has been abundantly demonstrated and illustrated during the World War. The methods resorted to by the different nations to stir up and develop these two emotions are yet clear before our mind's eye and need not be mentioned or described. Every nation which took part in the war entered upon a carefully-planned systematic and expensive propaganda solely intended to stir up a hate that did not exist before and without which it would have been impossible to get an army together.

We know only too well what happens when emotions are nurtured and encouraged and when they are unbridled and unchecked. What of the effects produced by the emotions which, for some reason or other, must be completely supressed?

Evil Consequences of Suppression

All thinkers must admit that members of the Germanic element in the United States were placed in a most awkward position after we entered into the war. Every tie and emotion that still held these persons to the Fatherland had to be subjugated and suppressed and they were furthermore compelled to listen to the constant denunciations and vilifications heaped upon all of their nationality, here and abroad. It must be explained, however, that there were thousands upon thousands of Germanic parentage; representing the first and second generations in this country, who were, or pretended to be, as loud in their denunciation of the Germans as were those of English or of French parentage. With these I shall not deal; rather with that smaller group of intellectuals, the cultured and educated class, who were born in Germany or who represented the first generation in this country, in whom the German emotional feelings and sympathies were still very strong. Some of these were investigators and scholars of the highest type. Some were here on invitation as exchange professors and as special investigators. Some had taken out their naturalization papers, others intended

to do so. Some wished to return to Germany where their positions were held open for them, but were not allowed to do so. These unfortunates were obliged to hear themselves denounced as huns, as barbarians, and as wild beasts. Some were imprisoned, their property was seized, they were summarily dismissed from their positions and found it practically impossible to get employment of any kind. Under these existing conditions, it became furthermore necessary to completely suppress all race emotions. A few were enabled to resort to self defense (by process of law) and, even though they lost out, the very act of defense served as a safety valve warding off a more serious physical degeneration. The following cases illustrate the effects of complete suppression of powerful emotions.

Illustrative Cases

Case 1. University instructor, born in Germany, naturalized citizen; about 35 years old, very active physically as well as mentally. Strong pro-German sympathies though absolutely loyal to the United States. Died a slow lingering death at the close of the second year of the war, due to a gradual breaking down of the epithelial and endothelial cells of the capillaries, resulting in slow cerebral hemorrhage. There was also slow degeneration of the cerebral nerve cells, general sensory and motor paralysis, constant pain, loss of speech, loss of memory. Wassermann negative. Case simply diagnosed as slow cerebral capillary hemmorrhage.

Case 2. Practicing physician, about 55 years old, born in Germany, naturalized citizen. Very active in Germanic society work in the United States. Very strong in his German sympathies. Strong sense of humor, highly humanitarian, lover of German literature, music and art. Ill for about five weeks, symptoms much as in Case 1, but the entire course of the degenerative changes was much more rapid.

Case 3. German woman physician. Age about 30. Born in this country, but very strongly pro-German, constantly worrying over the situation in Germany and Austria. Vehement in her expressions up to the time we entered into the war. After that, she completely suppressed her emotions. Died after a few weeks of suffering of what was diagnosed as pernicious anemia and mental breakdown.

Case 4. University instructor and research man, of German parents but born in this country. Very quiet habits, completely suppressing his true war emotions. After an illness of about four weeks, he died during the third year of the war of what was diagnosed as *purpura hemorrhagica*.

Case 5. Young German-American physician, both parents being of German birth (son of Case 2). Completely suppressed his war-time emotions. Died rather suddenly. Case diagnosed as acute mental breakdown.

These cases came under the writer's observation. Many similar cases were reported by others but are not cited here because the information given was insufficient. There were also a number of instances in which any more serious degenerative mental change was averted in various ways. Thus, two professional friends of German parentage assigned themselves special problems which occupied every moment of spare time and which taxed their mental powers to the exclusion of everything else. One acquaintance made a complete change in his career, entailing the utmost utilization of comparatively little-exercised mental powers. Several hoped to divert the mind from the world catastrophe by taking up agricultural pursuits as a side line, but without success. In fact, the field labors, if anything, further encouraged the brooding over the existing conditions, and this method of diverting the mind was soon abandoned. There were, of course, thousands upon thousands of cases where the suppression of the emotions left no appreciable harmful effects.

Several cases came to notice in which the emotions found relief in veiled sarcasm and some even found amusement in the many instances of ludicrous utterances of erratic and misguided anglophiles.

It may be recalled that, during the San Francisco earthquake and fire, many of those who lost all of their earthly possessions, including relatives and friends, underwent degenerative mental changes, in some instances resulting in death while others slowly recovered. The San Francisco-catastrophe cases were very largely among those well past middle life, whereas the World War cases cited in the foregoing were largely in the early part of middle life. The emotional feelings have their inception in the cerebrospinal system but are largely directed, modified and controlled by the sympathetic-nerve

system. It has long been known that the emotions are altered by the physical condition. In fact, the birth and development of an emotion is of the extremest complexity, being rooted in inheritance, in race, in family, in environment, in tradition, in training and education, and in physical condition. The higher emotional feelings are the latest in evolutional development and are therefore correspondingly less firmly established and hence more easily disturbed and destroyed. The lower emotions (hate, fear, anger, distrust, revenge), are far more easily aroused and they require but little stirring up and feeding, to so arouse them as to completely mask the less firmly established higher and nobler emotions (love, benevolence, philanthropy, courage, self denial). Of this, we have had ample proof during the World War.

The observations above briefly outlined suggest the following summarizing statements.

Conclusions

1. The continued more or less complete suppression of the powerful emotions tends to bring about degenerative changes in the epithelial and endothelial cells of the capillaries. The leukocytes apparently undergo certain degenerative changes, and those brain cells in which the higher emotions have their origin are also affected.

2. The degenerative changes of the kind especially referred to in this report evidently do not seriously affect the lower emotional feelings (hate, fear, anger). In fact, it would appear that these were dulled. As a fact, the lower emotions can not be aroused *via* the higher emotions, and, quite naturally, the converse holds true, namely, that the higher emotions can not be awakened by arousing the lower emotions.

3. The degenerative tissue changes mentioned under (1) are probably the result of serious modifications and alterations in the endocrine secretions.

We are in need of a morphology and physiology of the emotions and it is hoped that the observations made incident to the World War will serve as a nucleus for the creation of such a science. This would form a most valuable addition to psychology, to psychiatry and to criminology and to our knowledge of mental disorders generally.

It would appear that a therapeutics of the altered and diseased emotions will be developed *via* the glandular secretions and possibly through suitable mental exercise and diversion. It is much to be regretted that the opportunity for a careful inquiry into the mental state of the cases cited, before degenerative changes took place, was not offered.

Has Medical Ethics Become Obsolete?

By FRANK B. WARNOCK, M. D., Sioux City, Iowa

IN this short screed, I am not going out muckraking, nor have I a chip on my shoulder. I have no feeling of animosity towards anyone. Call me a reactionary if you will, that will not take from, nor add to, any of the truths hidden in what I may say. I am going to take right and justice into consideration, to the end that we may not be so cloyed with self interests.

For almost twoscore years, I have played an active part in the practice of medicine. Any alluring ambition I may have had, to get a place in the Sun, has long since vanished and I no longer have any great desire to appear in the spotlight.

From observation and contact, I have become somewhat familiar with the ticklish technic of the game. Many times, in the mists and morass of uncertainty, have I blundered, and I confess my many transgressions. However, I have never formed an alliance with any clique, nor used any propaganda for gain or glory, nor have I any detached memory of ever trying to knock the underpinning out from under a reputable competitor.

And, now, in my modest way, I am going to take it upon myself to wield the "velvet hammer" on some of the glaring corroded spots that are eating into the heart of the medical profession of today. They have become so obvious that even the laity are taking notice.

For a long time, I have cherished the hope that more of the big lights of the medical men, the real celebrities, those who

have reached the pinnacle, would get so big, that they might rise above their ostentatiousness and come down from the clouds, down into the lower atmosphere, disseminating a more congenial, friendly feeling among the "just-folks" kind of doctors, the kind we meet and rub shoulders with every day, the brainy, hard-working fellows who have had to paddle their own canoe without a pull. But, so far, I have hoped in vain. Along the road that I have traveled, I have failed to see the "Blue-Bird" of equality perched on the banner of the profession; on the contrary, I have noticed a lack of the true basic principles of fairness in the dealings of one with another.

Leaders and Ethics

In every well regulated organization, we have to have leadership, a code of ethics, and a constitution. The merit of leadership should depend upon qualification and integrity and not upon cheap propaganda and reckless egotism. A leader should cooperate for the good of all and be influenced by motives higher than the lure of self-aggrandizement and the lust for publicity.

As we come in contact with the methods of the present day, one is almost impelled to think that the medical profession has adopted a new code of ethics and a new constitution, where every man is a law unto himself, ignoring the rights and feelings of the other fellow. This is fully understood by the public and, in case of sickness, they do not hesitate to call in another doctor (usually on the advice of some overzealous friend of the family who has some pet doctor they want to favor), and they have no trouble whatever in getting another doctor to step right in and take the case regardless of the propriety of calling on a patient in the absence of the attending physician.

I am not alluding to the charlatans, the barnacles of the profession, nor to those who have obtained a foothold among the fraternity, too often, more from pull than merit. From that class, we expect nothing but bombastic egotism. I have in mind qualified physicians who are apart from the man that wants to play the game fairly. They have a malicious desire to belittle and cheapen a competitor without compunction. They very seldom turn down a call regardless of whose patient it may be, and in their subtle way give the attending physician the gaff in the solar-plexus when he is not present to defend himself. In the kindness and magnanimity of their great souls, they will say, "Well, of course, I would not imply that the doctor is not doing all he can for the patient, but, it occurs to me that he does not quite understand the case. I think we had better take her to the hospital, where we can give her better service and keep her under observation for a few days." Then, away goes your patient to swell the hospital records of the highbrow, while you are barred from the hospital, and left to hold the sack. If by chance you shou'd meet this physician in the course of a day or so, with sweet complacency he will grasp your hand and console your outraged sensibilities by saying "Well, Doctor, your patient that I took to the hospital the other day is getting along finely; she will be able to go home in a day or two."

Misdeeds of Specialists

It may not be remiss, while we are about it, to give some of our specialists a gentle tap. Do not misunderstand me; I have no quarrel with those who are too highminded, honorable men to stoop to do a disreputable thing, but who are doing great good in their special work.

Some time ago, I had under my care a very intelligent lady who was suffering from diabetes mellitus. As she had developed some stomach trouble, I referred her to a stomach specialist of some repute to have her stomach looked after, calling his attention specifically to her diabetic trouble. It was some three weeks before I heard from her again, then one day she called at my office. "Doctor," she said, "I don't want you to send me to any more specialists; I am willing to die if I must, but I don't want to be tortured to death."

The stomach man, after doing his part, had turned her over to a confrère of his who, he told her, was an expert on diabetes. He got in his work and, in turn, passed her on, until four wise heads had all done their stunts. Finally, of her own volition, she got away from the ring and returned to me. They had taken her blood-pressure, x-rayed her, cystoscoped her, telescoped (?), her, taken a Wassermann, had her teeth all extracted, analyzed her secretions and tissues. In fact, every device and method known to science had been used by these

very scientific (?) men to adroitly relieve this poor woman of her hard-earned money, and that in fact, was all that they did relieve her of.

Ye gods! Is it not time that the honorable, hard-working practitioner stood up on his hind legs and cried for relief from the rapacious specialists and the overzealous hospital geniuses?

Blatant Egoism

Egoism is the banner which another brand of our would-be superlative doctors are marching. They strut around like "bell-wethers" posing as the intellectual lights of the profession. Usually they have a coterie of henchmen or smaller satellites worshipping at their shrine, who are very compliant to their every beck and call. With the air of a potentate, they jolly the poor fellows to a frazzle and make them feel the essentiality of their friendship and council, using them as a sort of shuttlecock, or feeder, to augment their hospital practice. The go-between doctor may be just as competent and even more so than the man who is using him as a cats-paw; however, he is diffident and kept down by the men higher up who think that they have a superior right *because* they are higher up, regardless of what strings they may have pulled to obtain that position, or what means they are using to hold it.

These men may be competent physicians. Very often, they are not. They simply capitalize their "gall." And, they get away with it.

The Closed-Hospital Evil

Let a physician, no matter what his qualifications are, try to get a private patient into some of the socalled public hospitals and see what happens. If he has not reached the glittering heights of being on the hospital staff, he is told, in the majority of cases, with dignified composity: "We are very sorry but there is not a vacant room available." And, the hospital is closed to him, although there may be a dozen empty rooms in the building.

This is not fiction. It is the kind of courtesy that is being extended many reputable physicians. Is it not deplorable that a few men can band themselves together and form a combination to monopolize the public hospitals? Is it any wonder that there are so many reactionary physicians today? It is very patent that this kind of thing will be a great impediment to all attempts looking to harmonizing the profession.

Courtesy and Dignity

It is a sad reflection that there is such a lack of community and professional courtesy among the physicians of this generation. The old school of practitioners were more altruistic. They got by with dignity to the profession. Their code of moral philosophy taught tolerance; they had charity for all, and gave every one a chance to live and let live, they were not thought the less worthy because they did not make a display of their adroitness, and they did not have a tithe of the friction and petty jealousy that exists among the medical fraternity of today.

In the great onpush of the profession in this twentieth century, too often, I think, we become obsessed in our blind surging and scrambling for publicity. In the lure of our great desire for praise and power, we think only of the first person singular; we lose the gentle touch of tolerance; the spirit of fairness is forgotten.

The hope that never dies tells us that there is going to be a turn in the road pretty soon. The hand-writing is on the wall. There is a far cry for equality and fairness coming from the middle men. The "Stars" may flock together, but, class distinction must be eliminated. The general practitioner is coming back to his own, he is going to be something more than just a shuttlecock, a henchman, if you please, between the public and the man higher up; more than a feeder for the pseudo-specialist. He will not complacently send his patients to an institution controlled by a clearing-house ring, where they will not admit his private cases because he is not on the hospital staff. He will divert his business to a hospital where he will receive the same courtesy and have equal rights and privileges as the hospital geniuses.

We can not get away from the fact that a public hospital is a fundamental necessity, and that a well-equipped hospital is the only place where a certain class of cases can get adequate care and treatment. If the patients are able and willing to pay for the service, why should they not have the right to say who shall administer to them? And, if right and justice prevail, they are going to have that privilege.

How to Make Investments for Profit—II

By CUVIER R. MARSHALL, A. M., M. D., Detroit, Michigan

EDITORIAL COMMENT.—It is right and just that physicians should share in the advantages to be secured from the favorable market conditions prevailing—favorable in so far as the present low values of industrial and other securities are certain to experience a decided increase. How and in what to invest, is something concerning which but few physicians have sufficient knowledge. We consider it proper, therefore, to publish Doctor Marshall's instructive articles on the subject. We hope that many physicians will derive positive financial benefit from them.

IN the investment market, two movements are constantly going on that may be likened to the ocean's tides and waves. The first is, the long up-and-down movement of prices extending sometimes over a period of two or three years, or even longer, and corresponding to the ebb and flow of the ocean's tide. The second is, the short up-and-down movement in the stock market, that may continue a few days or a few weeks, perhaps, or but a few hours. This corresponds to the wave motions of the sea, short ups and downs that follow one another in rhythmic succession.

The progress of the long movement can be fairly well predicted by the student of business conditions, while no one can foretell the outcome of a short movement; when it will appear, how high it will go, how low it will fall or how soon it will terminate. One broker's guess is just as good as another's.

Buying for Investment, Not for Speculation

For the doctor, it is a better plan to buy only for the "long pull" rather than to attempt to realize on the prospect of a quick upturn, which can hardly be looked upon as investment but should be regarded rather as pure speculation, particularly when the purchases are made on margin rather than outright. Speculating in stocks is an art. It is a business in itself that requires the constant and undivided attention of the operator and the command of a certain amount of working capital. The doctor will do well to keep his hands off that game entirely.

At the present time, we are at the bottom or pretty close to the bottom of a long tidal movement. That there will be a recovery and, that prices will go up, is morally certain. In the case of the railroad stocks, that movement apparently has already begun. Never have we of the present age and generation seen a more favorable time to purchase good securities than just now. While prices, especially of industrials may sag some between now and next February, we have every reason to expect a general recovery to begin early next year, and this will continue in all probability for two or more years. During this general rising movement, there will be frequent short downs and ups on which speculators will buy and sell. The investor, however, who now buys a good income-producing security and pays for it, can lock it up in his vault, take his income regularly, while waiting for his profit, and absolutely ignore the short waves. In the meanwhile, speculators may sweat blood when they see their profits go a-glimmering and their margins wiped out, on the recessions that are bound to occur and recur even though the general trend of the market is upward.

Good Investments for the Doctor

Let us now turn to a consideration of the question of what are good investments for the doctor. Briefly, and in the order of their relative security and intrinsic value, they are: Savings-bank accounts; Liberty, Victory and other government bonds; bonds of states, provinces and municipalities; life insurance policies; bonds of railroads, public utilities and industrial enterprises; real estate mortgages; preferred stocks and common stocks.

Because savings-bank accounts are at one end of this list and stocks at the other, one should not conclude that stocks are poor investments as compared with bank savings. In some respects, they are better investments, especially for the man who has some capital, who must have the income, and who can well afford to assume some risk in the purchase of reputable stocks

rather than attempt to live on the income of a three-percent investment. Some stocks are better than some bonds and some bonds are better than others. Good securities are to be found in all of the classes listed above, the ultimate choice of the investor being governed by his personal requirements in the way of income.

The Savings-Bank Foundation

The foundation of every small fortune should be, a fund safely tucked away in a savings bank. Even though the amount be not large, it is an anchor to windward and may bridge over more than one emergency. The savings account should not be disturbed, except in extreme circumstances, until such time as the investor has built up a little structure of income producers and finds that he can get along without the nest-egg in the savings bank.

The savings-bank account does not fluctuate in value like a stock or bond. The cash deposited can always be recovered without loss, while even a Liberty bond may depreciate in value to some extent. Then, savings banks are usually regulated by State laws in the interest of the depositor. These laws prescribe the kind of investments the banks may make with their funds. Investors living in small towns can make deposits in savings banks of the great financial centers by mail. Some of the banks in Pittsburgh, Cleveland and other large cities pay 4 percent interest and advertise their "banking-by-mail" facilities in the leading magazines.

The arguments in favor of life insurance, for the young man especially, are so cogent and self-evident that they will not be considered here. It is sufficient to say that any man without a fortune of some kind should give his family the protection of life insurance, the form of the policy depending very largely upon his own circumstances and preferences.

Mortgages and Bonds

Mortgages and bonds are among the very best forms of permanent investment. A mortgage represents a loan secured by real estate. A bond may be a mortgage or it may be a mere promise to pay, like a note; in the latter case, it may be secured by a lien on other securities on property as, railway equipment, or it may not be secured at all, that is to say, it may be a debenture.

One objection to a mortgage is, the lack of a ready market. It is not always possible to dispose of a mortgage without delay. However, its value does not rise or fall like that of a bond. Mortgages are purchased with the purpose of investing or tying up money for a period of several years. If the investor is likely to need his money at any time, a negotiable bond would be a more suitable investment, as there is always a market for such securities. Mortgages should be purchased from a reputable dealer or a banker who will see that the title to the property is not impaired, that the amount of the loan is not excessive and that the property is a good risk. Of course, mortgages are subject to taxation as personal property and the revenue (interest) is subject to the Federal income tax. It is quite customary now for financial concerns to advance money on large building operations in the great cities of the country. These loans are secured by mortgages which are then split up into certificates, or bonds, and sold to the public. These certificates, or real-estate bonds, yield 5½ to 6 percent interest and usually run for a term of years. They can be bought in denominations of as low as $100.00. In buying such bonds, it is necessary to deal only with firms of unquestionable reputation. Some of the houses dealing in these real-estate bonds make capital of the fact that not a dollar has ever been lost by one of their clients.

To be on the safe side in purchasing a mortgage, it is well to deal with a bank that is in position to select only such risks as are wholly safe. This saves the small investor the trouble and necessity of looking up the records of the property, of getting an appraisal of its value, and so on. Almost any bank has on hand mortgages for varying sums which will be sold to investors, especially to those who are customers of the bank.

Bonds to be Preferred

On the whole, the safest, most convenient and least-troublesome investment is a good bond. At any rate, a few bonds should be secured as a part of every man's fortune, after a savings bank deposit and a life insurance policy have been provided, and before any money is invested in stocks. All of these investments may be regarded as safe and they can be converted into liquid assets, or cash, at any time. Bonds, representing money loaned to the corporation issuing them, bear interest at a fixed rate, usually payable semi-annually. In

case of failure or liquidation of the concern, bond holders' claims must be adjusted before stockholders receive anything; and first-mortgage bonds have priority over second mortgages, refunding, debenture and other bonds.

While government and municipal bonds are very desirable investments because of their great safety and exemption from the income tax, there are many bonds of railroads and other corporations, that are really as safe but which yield a higher rate of interest, particularly at the time when prices of such securities are low and the yield is correspondingly high. Railroad bonds can now be bought at discounts of 20 to 40 percent below normal prices, which means, that, in addition to the regular interest returns these bonds will yield a handsome profit when the market rises again to the high level, as it will do within the coming few years.

In our next paper, we shall present some examples of good bonds at current prices and yields, and then consider the subject of preferred and common stocks.

After Thirty Years—XXIV

Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

A Remarkable Result

In April, 1918, I published in this journal a description of my experience with something that far went of a letter home. It ended thus:

> For the past five years, it has pleased me to the extent of my being, to walk and has involved the most intense suffering. A considerable portion of the country of Connecticut. Many have written to me for further information, and have expressed a desire to learn the further progress and the outcome of the case. I may therefore, perhaps be justified in reporting the rather surprising result.
>
> When I state that I am at last almost free from pain and able to walk, some of my readers may be interested in learning how such a result was obtained, and some even sufficiently may be stirred much if the suffering which I endured.

For the benefit of those who did not read the article referred to, I will give a brief summary of the case from the beginning.

A Resume of the Case

Eight years ago, in 1912, I began to have pain in my left leg. It gradually extended upward along the sciatic nerve. In two years it had reached the sacral and lumbar nerves, and had taken on a decidedly spasmodic form, so that almost unbearable, especially upon lying down or making a motion or two. The pain was referred mainly to the sciatic nerves, but, also, included the sacral and lumbar regions. The muscular spasm accompanying the pain was intense in nearly all the muscles below the waist. The symptoms differed from those of ordinary neuritis in there being no constant pain nor aching, no tenderness of the nerves on pressure, no paralysis, no atrophy. All the symptoms gradually increased in severity, until, in October 1916, walking became impossible. It had been nearly so before, because every attempt to lift the foot brought on the spasms. The muscular spasm caused two ribs to break.

Most of the ensuing winter was spent in the hospital. Thorough examination located the trouble at the sixth dorsal vertebra, much higher up than the pain was felt. The X-ray showed nothing but a slight difference in the appearance of the bone when viewed stereoscopically, it being a little lighter than normal.

Extension of the spine, by means of a plaster jacket, gave some relief from the spasms, but the jacket itself caused such torture that the Philo-Burt elastic jacket was substituted, and with good results. It gave all he relief that the cast did, yet without the discomfort. This condition continued for over two years. In 1919, the symptoms became gradually aggravated, until it was impossible to sit up all day, and I could not turn over in bed without

assistance. On the 6th of December, I entered the hospital in a serious condition. I was very weak and greatly emaciated. The attempt of the nurse to help me turn over in bed would induce the spasms.

Curative Laminectomy

On the 21st of January, a laminectomy was performed on all the dorsal vertebræ from the 5th to the 9th, inclusive, removing the laminæ and spinous processes and exposing the cord. In that area, the posterior (sensory) roots of the spinal nerves were tied and cut. There was some scoliosis of the spinal column. The bone was found to be softer than normal, but laboratory examination excluded both tuberculosis and malignancy. The cause of the spasms had undoubtedly been, pressure on the spinal nerves at their exits through the intervertebral foramina. The softened bone permitted settling of the vertebræ, thus pinching the nerves.

The spasms ceased at once. My general condition improved steadily. Six weeks after the operation, I began to sit up and soon after to stand upon my feet. On the 11th of April, I left the hospital able to walk with crutches and even a step or two without them. From that time on, the improvement in locomotion has been slow but continuous. The spine, while weak and tender, is gradually approaching the normal. The spinal extension furnished by walking with crutches seems to have a marked beneficial effect. Since the operation, the pressure of a jacket of any kind is not well borne, as it soon causes pain in the lumbar region. This may be an advantage in the long run, because the support of the upper part of the trunk must be furnished by the dorsal musculature in the normal manner, which strengthens the muscles by exercise, whereas the constant wearing of a jacket or brace has a tendency to produce atrophy of the muscles from non-use.

As to the Etiology

The operation lends new interest to the question of etiology. The softening of the bone, neither malignant nor tuberculous, suggests acidosis with absorption of the lime salts of the body, and there is considerable evidence of a condition of acidosis having existed for eight or nine years. About 1911 and 1912, I was eating grape fruit very freely, until the resulting acidosis caused me to abandon its use. Ever since then, the use of very acid fruits or of foods producing uric acid has always been followed by an aggravation of the symptoms. At that time, but little was known of the importance of vitamines in the food and my diet contained less than the usual amount of those bodies, because I never was especially fond of those vegetables which are rich in them.

My own theory concerning the etiology of my trouble is, briefly stated, as follows: The prolonged excessive use of acid fruits, together with a lack of vitamines in the diet, produced a condition of acidosis of the system which gradually caused softening of the vertebræ by the absorption of lime salts. Then followed settling and scoliosis, pinching the spinal nerves at their exits through the intervertebral foramina.

True, this is only a theory, yet it seems to me a theory well supported by the observed facts. It would be objected to by some of our medical theorists on the ground that it conflicts with one of their favorite beliefs, namely, that the acid of fruits is converted into an alkali in the stomach. Now, while it may be true that a limited amount of fruit acid is so converted, it is no longer in doubt that, when acid is ingested very freely, there follows an increase of the acidity of the urine. I have observed this fact repeatedly not only in myself but in numerous patients. The effect on certain diseases confirms this observation. A man who had suffered much from lumbago and sciatica as well as from neuralgia in other parts of the body, consulted me for relief. On inquiry, I found that he ate a great deal of grape fruit and drank a great deal of lemonade. I gave him no treatment other than to suggest that he stop the acid fruits for a while. He did so and the neuralgia and other nerve pains soon disappeared. For two years, they have not returned, except twice when he tried the experiment of resuming the use of lemonade. Finding each time that the lumbago showed signs of returning, he gave it up for good, and has since enjoyed good health. In the past three years, I have seen eleven cases that were just as striking as this one in showing that the excessive ingestion of fruit acids can produce acidosis of the system just as truly as the excessive use of meat. No doubt, indi-

viduals differ greatly in their susceptibility to acids, just as they do in other respects. But, it is certainly advisable, when a patient shows signs that suggest acidosis, to take into consideration the question of acid fruits as well as that of meat in the diet.

Since the operation of January 21st, I have not only improved in locomotion, but in weight and general health. I attribute this improvement mainly to two things besides the relief from pain, namely, the extension of the spine by the use of crutches, and the use of a diet rich in vitamines and low in fruit acids and meat. To secure the necessary vitamines is not an easy matter under present market conditions. I have had to depend mainly on whole-wheat flour ground very fine, yolk of egg, asparagus, cauliflower, string beans, lettuce and sweet apples. Spinach and tomatoes would be good, but, unfortunately, I cannot eat them. Milk and buttermilk would be valuable if they could be obtained unpasteurized. In the matter of food, the country dweller has the advantage over the city people.

2920 Warren Avenue.

The Value of Oxygen in Pneumonia

By J. W. McCREADY, M. D., New York City

A METHOD of treating pneumonia that can show a high record of recoveries in the last twenty years is, it is needless to say, worth notice. The *early* use of oxygen is that method. In my opinion, oxygen is the most valuable therapeutic agent in medicine. It is the one thing that we must have to sustain life. No chemical element enters so extensively into vital processes as does oxygen. Oxygen does not act by stimulating a vital function in the sense that strychnine or ammonia do, but by supplying a deficient necessity of life.

My practice has been, for twenty years, to prescribe oxygen in virtually every case as soon as examination has established the presence of pneumonia and before I prescribe or order anything else. If oxygen is the need of the laboring lungs, why postpone it? Why not give it at once?

While early and frequent inhalation of oxygen is the backbone of the treatment, there is no neglect of other remedial measures, which I use as occasion requires. The ordinary liquid nourishment is given as long as the patient can take and assimilate it. Whisky is relied upon at critical periods as a stimulant and food. Water is used in abundance externally and internally. There is frequent sponging of the body and irrigation of the bowel to keep down the fever and eliminate poisons. I need not mention the minor details of the regular form of treatment, none of which should be neglected. The early and frequent use of oxygen does not dispense with the necessity of vigilance and of every possible precaution usually and commonly observed in treating pneumonia. Sleep is imperative; I do not hesitate to give bromides or opium when indicated. But, oxygen itself often relieves insomnia, especially when this is due to mental fatigue. No treatment can abort pneumonia or make it other than a self-limited disease with a certain time to run. During this time, symptoms must be treated and the patient supported in his battle for life.

It is during the second stage of pneumonia that supporting treatment is most urgent. Oxygen is then given very frequently. When the patient is unable to take the usual forms of food, I fall back on whisky and give from ½ to 1 ounce every two or three hours. Besides its value as a stimulant, whisky has a higher caloric value than milk, eggs or many other foods, with the advantage that it leaves no refuse. It is taken up and oxidized in the epithelial cells of the alimentary tract without the expenditure of any digestive energy.

In intestinal complications I often give chlorazene internally, as a disinfectant and antiseptic of the alimentary tract. (McCready: "Internal Use of Chlorazene." This journal, 1919, Nov., p. 759.)

As a student at Bellevue Hospital Medical College (about 1888) I remember that Professor Austin Flint, speaking of pneumonia in the second stage, stated that alco-

hol forms an essential part in the supporting treatment, as it does in all other diseases where the object is, to keep the patient alive until the disease has reached the end of its career and advances into the stage of resolution.

Beverley Robinson, Professor of Clinical Medicine at Bellevue, at that time, and considered one of the greatest teachers of his art that ever lived, also is an advocate of this plan of treatment of pneumonia. In pneumonia, he believed, whenever the breathing is much embarrassed, and especially when it is seemingly the lungs that are the cause of the embarrassment in great degree, the free use of oxygen inhalation is of untold value. He also called attention to the restlessness and the convulsive efforts of the respiratory muscles in dyspnea, which muscle effort itself increases greatly the demand for oxygen. The inhalation may break this vicious circle and induce rest. For a weak or failing heart, Doctor Robinson says that old brandy and coffee are of primary value. All these views may be found expounded in an article by Dr. Beverley Robinson, entitled "The Treatment of Pneumonia," in *American Medicine* for April, 1910, page 195.

Oxygen Early rather than as a Last Resort

The authorities whom I cite at the end of this article recognize, as do all physicians, that oxygen is indicated when there is cyanosis. If this is so, why wait for cyanosis? Why not prevent cyanosis?

Oxygen is not a risky agent whose use needs to be avoided. It is not irritating. On the contrary, it is safe, bland, and of inestimable value at all stages. Moreover, oxygen cannot be postponed without danger.

In pneumonia, the delicate epithelial lining of the air cells of the lungs rapidly approaches a point where it ceases to function, cyanosis ensues; but, at that period, oxygen, even if crowded, may be too late, as the vitality of the organ may have been lost or seriously impaired.

Pneumonia must be regarded as dangerous by reason of its depriving the blood and all the organs of oxygen. Cyanosis is a signal of oxygen starvation; however, even before cyanosis appears, the whole body is beginning to die from low oxygenation and its resultant exhaustion. So, it seems logical to feed oxygen as early and as often as the reduced breathing power of the patient may indicate.

Some of the common symptoms of pneumonia are eliminated or attenuated when oxygen is used early. Nervousness and anxiety are quieted. Fast breathing is changed to slower, deeper breathing. The patient often will go to sleep or rest quietly after oxygen inhalations. A pulse of 130 or 140 may be brought down to 100 or 110 in a few minutes. After a paroxysm of coughing, I give oxygen continuously for a time, relieving the suffocation which follows these symptoms. At any time that the patient is distressed by air-hunger or has any tendency to pant and gasp for breath, I administer the gas until there is relief and tranquillity.

When the crisis is reached and the patient has entered a state of weakness and collapse, the oxygen is invaluable and I administer it as freely and continuously as his welfare demands. Nature is then attempting to repair the extreme depletion of force that follows struggle, and richly-oxygenated blood is needed in every corner of the body for rebuilding.

Pure, Fresh Air

Between times and all the time, the patient must have pure *air*—and lots of it. It would not be very consistent to give tank oxygen and meantime let the patient lie in a close room with shut windows and stale air. Part of the treatment, and a part that I consider highly important, is, to keep the windows open day and night, even though (as is usually the case) the nurse is obliged to wear wraps continually. It is vital to the patient to have pure fresh air, plenty of it, and in constant circulation.

The Administration of Oxygen

Oxygen is furnished for medical use under compression in steel tanks. It cannot be called expensive, when $30 to $40 worth will see most cases through. For administration, it is passed through water in a bottle and conveyed to the patient by tubing terminating either in a nose- or mouth piece. I prefer the nose-piece. Many patients are panting and gasping for air; administration by mouth is then uncomfortable.

I prefer for the nose a flattened tube, either of gutta percha or glass, to fit snugly in one nostril, allowing air to enter at the

same time through the other nostril. In cases where I want the patient to get pure oxygen, a double nose-tip is used. A glass funnel may, if desired, replace the nose piece. The funnel is held over the nose and mouth without quite touching. Or, in instances where cough is frequent and expectoration profuse, I have seen good results from a soft rubber catheter passed through the nose into the nasopharnyx.

Some writers advocate other methods of giving the gas, such as a mask, a hood or tent surrounding the head, or a tongue depressor with tube attached leading direct into the throat. These no doubt will work but I think are needlessly fussy and annoying.

The simple tube to mouth or nostril, or the glass funnel, answer all requirements and do not bother the patient. I usually give oxygen about two minutes at a time. In some cases, as already mentioned, it is to be given up to fifteen minutes continuously. Nearly always, air is allowed to go in with it, but there never need be the least hesitation in giving oxygen "straight" if circumstances require.

The disappearance of cyanosis, the return of color to the lips, slower respiration, slower pulse, all are signals that enough gas has been given for the time being. There is no danger whatever in giving oxygen. It does not irritate. It quiets. An even, steady administration can do no harm.

Oxygen not a Deathbed Resort

Patients and their family are frequently scared when oxygen is ordered, due to the widespread notion that it is a deathbed resort. A little diplomacy overcomes this resistance. When the patient is sent to a hospital, I have a tank of oxygen installed in the room before he arrives. He accepts it as part of the room equipment and not as having been ordered specially for him.

When a patient has had a few whiffs, with the accompanying quick relief, you hear no more objections from him in any event. In paroxysms of coughing, the help is so certain and so immediate that no persuasion is needed after the first trial.

Oxygen is better than any drug for controlling the pulse, in my opinion. The heart action becomes stronger and slower. Best of all, it does so by recruiting nature rather than by drawing on reserved vital energy. It is better than digitalis. Oxygen makes the frequent whipping up of the heart with nitroglycerin and strychnine superfluous. These drugs, too, have the disadvantage that they tend to keep the patient awake, whereas oxygen encourages sleep.

Oxygen is manufactured by two different methods. That produced by the liquid-air Process yields 96 percent oxygen and 4 percent nitrogen. The electrolytic methods yield an oxygen over 99 percent pure. Either product is equally good for medical purposes.

Oxygen in Medical Literature.

The favorable mention of oxygen runs all through medical literature. Below, I give a few selections, covering a period of forty years down to the present time. However, in these comments, the assumption is altogether too much in evidence, that oxygen is something to be kept in reserve and only used at a late or desperate stage.

Prof. W. Gilman Thompson, in an article, entitled "The Therapeutic Value of Oxygen," (*N. Y. Med. Jour.*, July 6, 1889,) summing up current medical reports at that time, stated that "hundreds of cases of dyspnoea and cyanosis complicating pulmonary diseases have been reported in the journals of the past few years as benefited by oxygen inhalation," and Dr. Robert T. Reed, "Oxygen as a Remedy," (*Mass. Med. Jour.*, 1891, p.151,) wrote: "In general terms, one may say that any disease which give rise to dyspnoea will be benefited by oxygen, and, the greater the dyspnoea, the greater the need of oxygen."

Dr. E. M. Skerritt, "Oxygen Gas in the Acute Respiratory Infections," (*Brit. Med. Jour.*, Feb. 6, 1892): "The immediate effect of the oxygen was most striking. The pulse improved steadily in tone and the cyanosis completely disappeared. As the nails were watched, the blue color under the nails could be seen fading away and giving place to a healthy pink. This sequence occurred again and again."

Dr. W. Marcet speaks of the great relief afforded by oxygen after a fit of coughing, in "A Contribution to the History of Respiration in Man: being the Croonian Lectures before the Royal College of Physicians in 1895," (London, 1897, p.67): "In coughing, the respiration is labored, the

muscles having to strain against the closure of the pharynx and draw out the air from lungs by forcible expulsion. The result is, increased formation of CO_2; hence at the end of the expiration there is an excess of CO_2 in the blood."

Oxygen lessens that restlessness which is attendant upon defective aeration and hurried breathing, states Dr. R. Douglas Powell, Physician Extraordinary to the Queen, in his paper on "Pneumonia," read before the annual meeting of the British Medical Association and reproduced in the *British Medical Journal*, (Nov. 9, 1895). He continues: "The value of oxygen in pneumonia is twofold. It will help to keep the patient alive on a small respiratory surface which would otherwise be inadequate. Second, the direct effect of its inhalation on the heart is, to send more richly-oxygenated blood to its left cavities and its muscular walls. The general practice of the London hospitals is, only to use oxygen in desperate cases for the treatment of cyanosis. I would venture to urge its use also, and indeed, rather as a cardiac tonic, to anticipate and if possible prevent heart failure by helping cardiac nutrition."

Dr. Walker Schnell, in the *Indiana Medical Journal*, (Sept., 1896), writes: "The promptness with which dyspnea is relieved when oxygen is used strikes the eye and influences the judgment."

Sir T. Lauder Brunton, in his "Lectures on the Action of Medicine," (1897, London and New York, pages 283-287-5), returns again and again to oxygen, and states that the indications for its administration in dyspnea and cyanosis are, to watch either the lobes of the ears, the lips or the nails. As often as these get blue, the patient ought to have more oxygen; let the patient inhale the oxygen until the blueness disappears. Where one lung is nearly consolidated, oxygen enables the intact lung to virtually do the work of two. And in the crucial time when one lung is clearing up and the other beginning to solidify, oxygen, in his opinion, is specially serviceable.

Dr. George H. Weaver, of Rush Medical College, in an article on measles in children writes that bronchopneumonia is the most common and fatal complication and that oxygen treatment is invaluable. The oxygen, he says, is administered with slight dilution of air, being given every five minutes out of fifteen or twenty. If dyspnea is severe, oxygen may be administered continuously. It gives the best results, he emphasizes, if adopted early, and not as a measure of last resort.

The revered Dr. Jacobi, in his "Therapeutics of Infancy and Childhood" (second edition, (1898), page 130,) states: "As long as the organs of respiration and circulation are normal, the atmospheric air contains more oxygen than they require. Still, whenever they are disordered, as in the orthopnea of pneumonia, in asthma and emphysema, in pulmonary tuberculosis, in cardiac diseases, and in anemia depending on these conditions, the inhalation of oxygen is of undoubted service."

Dr. H. P. Loomis, ("International Medical Annual", 1903, p.545,) writing of pneumonia and its treatment, says that oxygen is always to be given as soon as pulmonary edema develops and cyanosis is marked. In some hospitals they use it often early in the disease for labored breathing, and always when there is the least cyanosis.

In Ortner's "Treatment of Internal Diseases", Dr. Norbert Ortner, University of Vienna, (1903, p.295,) in discussing diseases of the lungs, states that, in dyspnea, cyanosis, marked diminution of the respiratory surface and coincident weakness of the heart, breathing and heart action are slowed by inhalation of oxygen, and the subjective symptoms are much improved, showing that more oxygen has passed into the blood and tissues after the inhalation.

In Hare's "Modern Treatment", (1911, p.222) Dr. James Mackenzie states, in an article on diseases of the heart, that, "The conditions in which I have found oxygen of benefit are in some cases with Cheyne-Stokes respiration, cardiac asthma and angina pectoris."

From "Materia Medica and Therapeutics", (Bastedo, 1915, p. 534): "From the physiologic action of oxygen, it is evident that the inhalation of oxygen may be of great value in conditions of cyanosis, depressed breathing and failure of the circulation, whether acute or chronic. Its chief employment has been in pneumonia. The author's method in pneumonia is, to build a tent over the head and shoulders of the

patient and let oxygen and the steam from a croup kettle mingle with the air in the tent."

"Gassed" Soldiers

Some significant side-lights are thrown on this topic by a very recent report in the *Lancet*, (London, England), in the issue dated February 7, 1920, (p. 320). An article entitled, "The Therapeutics of Oxygen", reports on a meeting of the Royal Society of Medicine which took place January 2, 1920. Mr. J. Barcroft opened the discussion. Oxygen had been used by him in the treatment of men who were gassed. The Cambridge Laboratory was the scene of the treatments. No apparatus was used for the inhalation, as the patients were placed in a glass room of 1,000 cubic feet capacity, which was made gas- and air-tight. The composition of the atmosphere in this room was kept at about 40% to 50% oxygen and 50% to 60% nitrogen. There were three beds in this room. The carbonic acid and aqueous vapors were removed by passing and repassing the atmosphere through an external circuit which contained soda, lime and calcium chloride. The patients remained in the chamber from 6 p. m. to 10 a. m. for five consecutive days. Fourteen cases were treated. Pulse and respiration were studied. All received marked benefit from treatment and still showed improvement two and a half months afterward.

In these gassed cases, there is always a high red-blood-corpuscle count. The normal air in these cases presents an oxygen deficiency. During the treatment described, the high blood counts were reduced to normal; and the blood counts which were normal before the treatment remained normal throughout.

None of the patients were attacked by nocturnal dyspnea during the treatment and in four of six cases there was a complete and permanent cure.

Continuing its report, *The Lancet* quotes J. S. Haldane, who was present at the meeting and pointed out that even a very small degree of anoxemia (deficiency of free oxygen in the blood) would, if given time, have serious effect upon the individual.

The Lancet cites a paper on the existence of anoxemia in acute cases, in the *American Journal of Experimental Medicine* (Sept., 1919), by Stadie and Harrup. They took examples of arterial blood from the radial artery and determined the deficiency in saturation of the arterial blood. Stadie's cases were, principally, pneumonia of different types. In practically all, there was a deficiency in saturation of arterial blood, and in some as great as 50 percent. With such deficiency existing, the patient always died.

A Final Word

I cannot leave this subject without reiterating certain points.

In pneumonia, the problem is, to keep going the three great functions of bodily upkeep: oxygenation, nutrition, sleep—all of which are interfered with by the disease. The fever, poisons and disorders of the nervous organization very often prevent sleep and seriously derange peristalsis and the chemistry of digestion. The reduced lung surface menaces life by allowing the blood and every organ to succumb to carbon dioxide. It is imperative to keep repair active, not only as much as in health, but more if possible, because of the exhaustion consequent on the body's fight against the invading organisms.

In my own practice, I do not neglect any proper aid to Nature that is approved by standard medical practice. I believe in treating pneumonia as a self-limited disease and I believe in treating symptoms as they arise. No least detail should be overlooked for the safety and even the comfort of the patient in his fight. The physician ought not to allow himself to be absorbed solely in the research after a microbe, but should try to sustain the forces of the organism and make good its defense.

But, pneumonia is too often fatal, and I am convinced by twenty years of experience that oxygen is the element least to be neglected, the most vital and most important. Its *early* use, plus recognized procedure as already described, shows a high record of typical pneumonia cases saved, as stated at the outset of this article.

Oxygen is *not* a deathbed resort. One might as well postpone nutrition until emaciation begins, or deny water until a patient's lips and throat are dry and swollen, as to postpone oxygen until gasping and blueness begin. In health, though we can do without sleep, food or water for considerable periods, we die if air is denied for minutes.

Why should oxygen starvation, the chief cause of death in pneumonia, be permitted?

Some Observations on the Pharmacology of the Areca-Nut*

By JOHN A. HIGGINS, Chicago, Illinois

A BEAUTIFUL palm found in the Philippine Archipelago is the areca or betel-nut palm. This palm bears a nut that is used by the natives as an ingredient to a chew. The nut clusters on stalks under the tuft of leaves and at the top of the tall slender stem. The yearly production of each palm tree is from 200 to 800 nuts; age, situation and culture being the factors involved in the yearly output. The nut itself (Fig. 1) is enveloped in a fibrous shell, it is conical-shaped and is of a fawn color intermingled with a white matter.

Earlier Experiments

Jackson[1], who has investigated to some extent the pharmacologic action of a salt of the active principles of the areca-nut (arecoline hydrobromide) has been able to produce and record graphically a great slowing or stoppage of the heart together with a profound constriction on the bronchioles. From results obtained, Jackson suspects the drug to be the most active of all the drugs that cause bronchoconstruction by nerve-end stimulation. Other writers affirm that arecoline hydrobromide possesses sialogogue, diaphoretic and vermifuge actions, stimulating peristaltic movements of the intestines and causing constriction of the pupils. In medical doses, it is also claimed to be a cardiac sedative, diminishing the force and number of pulsations, acting energetically and causing a most profuse salivation.

In a publication by Guppy[2], some interesting data have been noted. Guppy, through curiosity, chewed and afterwards swallowed a betel nut. The symptoms arising were, a heavy feeling in the head, an inclination to lie down, and the sight was sensibly dimmed. Unfortunately, at this period, Guppy neglected a notation of the pulse rate and also of any noticeable respiratory changes. He did, however, at a later period, Guppy neglected a notation of the from the chewing of only a single betel nut and, in this instance, pulsation increased in force and frequency from 62 to 92 beats per minute, together with a feeling of restlessness and a sensation of fullness in the head and temples. Some of the crew who, at Guppy's desire, tried the effect of chewing a single nut, informed him that it affected them much in the same manner as a glass of spirit would. The natives themselves seemed to realize that to chew more than one nut at a time would produce unpleasant symptoms, dizziness and nausea.

Davis[3] tells us: "Most writers affirm that occasionally the nuts, especially when eaten fresh, are found to possess intoxicating and

Fig. 1. View of the betel nut, or fruit of the betel nut palm (Areca Catechu). A—unhusked betel nuts; B—betel nut sectioned; C—betel nut and fiberous construction of the husks.

poisonous properties. This is believed to be an accidental peculiarity of certain trees. This poisonous property has been ascertained to be destroyed by boiling, and, hence, no doubt, the custom has come into existence of preparing the nut for market by various methods of cooking." Lime being an ingredient to the buyo chew, as the natives often term it, Davis goes on to state that the purpose of the lime is, to give a pleasant sweet taste to the chew, which, when taken without the lime, is bitter and not so desirable. It also has a chemical action on the betel nut and leaf which produces the red color and dyes the oral mucosa red and the teeth black.

The known fact that we occasionally find an alkaloid, or alkaloids, that require heating in order to go into a solution hurriedly,

*(From the Department of Pharmacology, University of Cincinnati College of Medicine.)

as for example hordenine or, possibly, strychnine sulphate; also, that alkaloids are occasionally subject to sterilization without noticeable injury to their activity, has made it rather questionable whether or not cooking would destroy the poisonous property of the areca-nut. Taking this view point into consideration, also the desire to determine what other possibility might occur as a factor in warding off any poisonous effects, has induced me to carry out a series of experiments. The areca-nuts used in carrying out these experiments were gathered in the neighborhood of Fort William McKinley, Rizal Province, Philippine Islands. The areca-nuts were kept for at least two years before being used for experimental purposes. The experimental work was carried out solely upon dogs.

Personal Observations

The point first to be determined was, to make an extract from the areca-nuts and to determine whether or not the two years' storing had destroyed the active principle. This question was solved by taking 500 mg. of coarsely powdered areca-nuts and agitating with a solution made up of 50 mils (Cc.) of distilled water plus ½ mil of

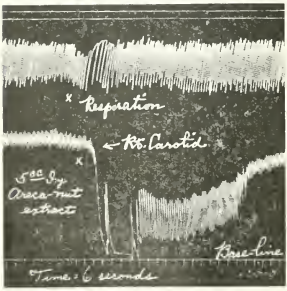


Fig. 2. See text for explanation.

hydrochloric acid. The hydrochloric acid was labeled 37 to 38.5 percent. The agitation was repeated, occasionally, for a period of one week. After carefully filtering the agitated product, 5 mils of the filtrate was injected into the femoral vein of an animal. This injection was followed by a marked fall in blood pressure, a slowing, followed by an acceleration of respiratory movements, with a final stoppage of the heart and respiration. This experiment indicated very plainly that the active principle was still present.

The next object was, to determine whether or not boiling actually destroyed the poisonous property of the nut. An extract, made up as previously mentioned, was subjected to boiling for over an hour, adding

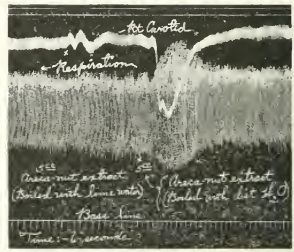


Fig. 3. See text for explanation.

distilled water occasionally to replace water driven off as steam. After boiling and permitting to cool, the product was filtered and 5 mils of the filtrate was injected into another animal. This injection (Fig. 2) was followed by a marked fall in blood pressure, a vagus action, a slowing of respiratory movements with a final recovery of heart and respiration. This would indicate that boiling, for a period of one hour, does not noticeably destroy any of the poisonous properties of the areca-nut.

Since slaked lime is an ingredient with the areca-nut in the buyo chew, my next point was, to determine whether or not this chemical might retard or destroy the poisonous property in it. This problem was investigated by boiling 500 mg. of the coarse powdered areca-nut with 50 mils of limewater, adding distilled water from time to time to retain 50 mils of solution in the filtrate. Another 500 mg. of areca-nut was boiled with distilled water only. An injection of 5 mils of each filtrate was put into an animal. In the first instance, where the limewater filtrate was injected (Fig. 3) it showed a slight variation in blood pressure with no noticeable effect on respiration. The distilled-water filtrate

showed a marked fall in blood pressure with an acceleration of respiratory movements. Boiling with limewater would, therefore, seem to decrease the poisonous property of the areca-nut. It may be concluded that the slaked lime or limewater precipitates the insoluble arecoline alkaloid.

However, since I have noted some peculiarities of action in the drug, further investigation will be required. Alkaloids, other than arecoline, are known to exist in the areca-nut. These alkaloids are claimed to be inactive physiologically. This was affirmed, eliminating, however, any possible action on the vagus, by injecting 5 mils of a known active extract into an animal. While the vagus effect was present (Fig. 4), 3 mg. of atropine sulphate was injected. This injection increased the pulse rate by paralyzing the peripheral ends

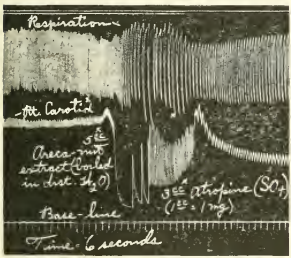


Fig. 4. See text for explanation.

of the vagus, counteracting further injections of the extract.

It was noted in this series of experiments that, if an active solution was treated with limewater and made alkaline in reaction, using phenolphthalein as an indicator, it was possible to record a reaction somewhat similar to the first injection as noted in Fig. 4. Yet, this alkaline solution did not indicate a precipitate of the free base. If this alkaline solution was filtered carefully, and then a drop or two of hydrochloric acid was added, to neutralize the solution, a marked fall in blood pressure corresponding approximately to the second injection as noted in Fig. 3 was again obtained. Noting such a phenomenon, I suspected that calcium might act on some nerve mechanism, counteracting the arecoline salts. I, therefore, injected 110 mils of a 4-percent calcium-lactate solution into an animal, within a period of 15 minutes. This injection was followed by 5 mils of the known active extract (Fig. 5). The calcium lactate did not hinder the activity of the extract. Neither was there any noticeable change by injecting calcium lac-

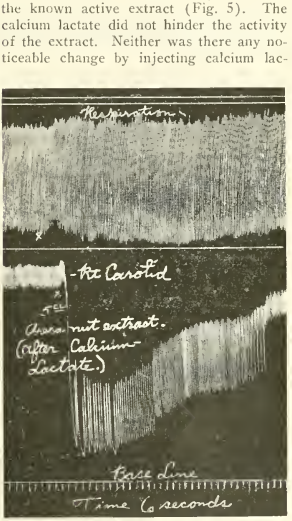


Fig. 5. See text for explanation.

tate after the fall in pressure had occurred, as in the case of atropine sulphate. I am therefore inclined to assume that the action of the calcium hydrate is, to bring down the free base.

In regard to the drug's action as a cardiac sedative, I am inclined to believe this action to be a natural consequence of its effect. Referring back to the publication by Guppy, I have never noted a single instance where pulsations were increased in force and frequency.

References

1. Jackson, D. E., *Jour. of Pharmacol. and Exper. Ther.* Vol. V, 1914, p. 489.

2. Guppy, "The Solomon Islands," London, 1887, p. 95.

3. Davis, *Jour. Amer. Med. Assoc.*, Vol. LXIV, p. 713.

What Others are Doing

REMOVAL OF ADHESIVE PLASTER WITH GASOLINE

In a recent issue of the *Journal of the American Medical Association*, several correspondents called attention to the fact that adhesive plaster can be loosened very readily by means of gasoline or benzine. This is a method far superior than that of employing alcohol or even ether and will, we are sure, be welcomed by practitioners. Ordinarily, the removal of strips of adhesive plaster, especially in places that are somewhat hairy, is a very distressing procedure—to the patient.

BENZYL BENZOATE FOR WHOOPING-COUGH

In the July number of the *Johns Hopkins Hospital Bulletin*, Macht reviews his work on the opium alkaloids, reminding us that they are of two classes: (1) a group represented best by morphine, which increases smooth-muscle tonus; and (2) a group represented by papaverine, which reduces it. The effect of papaverine he found to be due to its benzyl molecule, which led him to the discovery that the molecule might be preserved and presented in the medicinal ester which we know as benzyl benzoate.

This drug has truly enough proved effective for the relief of pain due to spasm of smooth-muscle tissue, as, dysmenorrhea, for example; also in excessive peristalsis, as occurring in dysentery; and again in conditions characterized by dyspnea, as asthma, which is essentially a bronchial spasm. The writer treated 200 such cases, he says, with success in 75 percent. This experience prompted him to try it in whooping-cough, which is a spasmodic condition of the larynx. Sometimes, he it said here, the laryngeal fault is complicated by bronchial spasm. He gave the 20-percent elixir by mouth to 115 patients, most of whom were children, in doses ranging from 5 to 40 drops in water, three or four times a day and oftener in some cases. His own children were among those treated.

About 90 percent were benefited, more than half the cases decidedly so. The drug was found on the whole to reduce the number of paroxysms as well as their severity. Its favorable action is variously accounted for, as it must, since we are not dealing with smooth muscle tissue primarily. However, the drug is shown to be sedative to the respiratory centre, for instance; besides in a measure locally anesthetic; and also slightly antiseptic. It is in part excreted in the saliva and bronchial excretions.

In its favor is the fact that the benzyl treatment is a safe non-narcotic one for children.

ACRIFLAVINE IN GONORRHEA

Writing in the *Southern Medical Journal*, for September, 1920, Daisy M. O. Robinson, of the U. S. Public Health Service, quotes Davis and Harrell, who, in the *Journal of Urology*, made this statement regarding acriflavine in the treatment of specific urethritis:

"(1) It possesses the property of diffusibility; (2) it is antiseptic in urine in higher dilution than any diffusible dye studied; (3) it will inhibit the development of the gonococcus in a dilution of at least 1:300,000 (has at least 600 times the strength of protargol). A trial of this drug in the treatment of gonorrhea has been experimentally justified. Acriflavine has been used with considerable success both abroad and in this country, and while it is not specific in the treatment of gonorrhea, it has been found to be a potent adjunct. It is used for urethral injections in the strength of 1:1000.

TREATMENT OF BARBERS' ITCH

Tinea sycosis, or barbers' itch, is a contagious, parasitic affection that is as distressing in its effects as it is resistant to

treatment. Those who have at any time been its victims, never will yearn for any "return engagement". While the superficial forms of the malady may be amenable to local treatment with a fair expectation of prompt results, those cases in which the deeper layers of the skin are invaded by the causative parasites are, often, extremely obstinate.

In a recent issue of the *Wiener Medizinische Wochenschrift* (July 24) Dr. Julius Polacek discusses the management of this skin affection as it interests the general practitioner.

For the simpler forms, and for those that are not very extensive, he considers the local application of tincture of iodine sufficient. This is to be repeated daily until a scaly desquamation becomes manifest; after this, the resulting dermatitis is treated with zinc ointment. Other authors have recommended painting with carbolic acid, with perhydrol, with tincture of iodine and 5-percent ointment of the white precipitate (ammoniated mercury).

In extensive herpes tonsurans, the author recommends the application of Wilkinson's ointment (Compound Sulfur Ointment) which is done daily and followed with dusting with talcum venetum; however, the ointment should be continued until the affected foci commence to desquamate. After this, the dermatitis is likewise treated by means of zinc ointment.

In deep-seated affections, the author recommends the administration of moist heat in the form of hot compresses with dilute aluminum acetate or 2-percent resorcin. The applications should be kept up for a sufficient time, being repeated frequently, so as to maintain the proper degree of heat. The purpose is, to cause the nodules and infiltrations to break down and discharge. The hairs in the entire affected region should be depilated and shaving forbidden.

This treatment is supported materially by the administration of trichophytin, which is a filtrate of trichophytin cultures. The author employs a dilution of 1 mil of trichophytin in 50 mils of a ¼-percent solution of carbolic acid; of which 1/10 mil is injected intradermally in three places of the upper arm. Within twenty-four hours, the local reaction will become manifest consisting of redness and swelling at the points of injection, with which is associated a distinct focal reaction of the affected regions. The injections are repeated after the reaction symptoms have gone down, the dilution of the trichophytin then being made in the proportion of 1:30. Later injections are made with dilutions of 1:10 and of 1:1. If necessary, the undiluted trichophytin may be administered in like manner as the earlier injections. This treatment has proved successful in a number of cases, while in others a considerable degree of improvement was noticed. In these last-mentioned cases, trichophytin treatment was supplemented successfully with the hot compresses mentioned in the foregoing.

HYPODERMIC INJECTION OF SODIUM CACODYLATE

"The hypodermic administration of sodium cacodylate is rendered painless by the addition to the dose, in the syringe, of about 5 minims of a 1 percent solution of procaine. The burning is overcome and soreness much reduced.

"I used sodium cacodylate for several years, but was virtually always confronted with the complaint of severe pain at the point of injection, lasting several minutes. This necessitated abandoning treatment in many nervous patients and particularly in children; also in cases of extreme emaciation, such as it is found in pernicious anemia and tuberculosis. Until I myself was compelled to be at the "sharp end" of the needle, in the use of sodium cacodylate, I did not realize that this burning, especially from the stronger solutions, was quite so intense. The common idea, that injections in the muscle are painless, is incorrect.

"At first, I diluted the solution with plain sterile water. Then it occurred to me to use a solution of procaine in connection with the arsenical preparation. The result was extremely gratifying to me and has been so to numerous other victims requiring this valuable medicament.

"A 1-percent solution of procaine will not precipitate the ordinary dose of sodium cacodylate. Stronger solutions, however, will do so."—[A. A. Robinson, in *Jour. A. M. A., Sept.* 4, *p.* 691.]

VACCINES IN INFLUENZA

The paper under this title in the *Boston Medical and Surgical Journal* (Dec. 25, 1919) is a very fair estimate of vaccine efficiency. The author, Doctor Waters,

pathologist at the Massachusetts Homeopathic Hospital used the Leary vaccine which is prepared from various strains of the influenza bacillus, besides the pneumococcus, streptococcus and micrococcus catarrhalis; out of the conviction that the disease is due to mixed infection with these several organisms. Recommending a dosage of 2 to 4 mils at three-day intervals, about fifty thousand doses were sent out by the writer to physicians both in private and industrial practice, during the epidemic of last year, in order to determine the value of the vaccine, if possible. The results are interesting.

While reporting on his task, the writer confesses the possibility of error, in view of difficulties in the way. He is mindful of the fact that epidemics afflict, first of all, those most susceptible and that measures taken for immunization may really include persons already immune. Figures may therefore be misleading, especially when two communities are compared, with respect to morbidity, let us say, one early and another late, in the course of an epidemic. Then, too, the disease may have been contracted just before the vaccine is given and develop in spite of it in quite the ordinary way. The result in this event may be counted against the vaccine, which, of course, would be unfair. Nor do we know just how long a conferred immunity lasts. Indications are that it lasts about four weeks; if so, the vaccine ought not to be discountenanced if the disease appears, after the fourth week, for, in the interim, immunization may be perfect and complete. With all this in mind, the results of the trial are interesting to note.

Of 200 workers in a candy factory, who had not been vaccinated, 75 took the disease and 4 had pneumonia. On the other hand, only 3 out of 250 vaccinated persons came down with it and none developed pneumonia.

In another industrial plant, 25 unvaccinated workers were kept under observation and it transpired, we read, that 18 contracted influenza, one developing pneumonia. Whereas, out of 90 vaccinated persons only 5 became ill with the disease but none developed pneumonia.

The results were even more favorable in the hands of private practitioners, one of whom inoculated 47 persons and not one of whom contracted the disease. The same experience was reported by others. In one instance, only 1 out of 200 vaccinated persons became ill; in another, only 2 out of 160; and so on. The outstanding feature in these trials, as reported, was, the absence of pneumonia, except in one or two instances.

One can only conclude that the mixed vaccine has a certain prophylactic value and ought to be used in a routine way when epidemic influenza impends. Even allowing for all possible errors, in such trials as the foregoing, it is unreasonable to deny this. One or more inoculations should be made, remembering that as many as three may be necessary, with repetition after the fourth week, and that the whole of one week may elapse before immunization is fully accomplished.

ACTION OF CHLORINE ANTISEPTICS

In a paper published in the June number of the *Annals of Surgery*, dealing with the method of action of the different chlorine antiseptics, Walter E. Lee gives the practical application of his observations in the following words:

"1. The *direct germicidal effect* of all the chlorine antiseptics is dependent upon the liberation of their chlorine and the combination of this chlorine with bacterial protein.

"The rapidity with which the *hypochlorite solutions* liberate their chlorine necessitates, in order to avoid the destruction of living tissues, the presence of large masses of available protein (devitalized tissues and profuse wound exudate) or the use of such dilute solutions that a safe margin in the relative masses of the active chlorine and available protein is insured. Thus the usable strengths of hypochlorite solutions, which should be less than 0.5 percent, liberate such a small mass of chlorine that their *direct germicidal effect* is almost negligible. But, unlike the other chlorine antiseptics, they exert a very definite *indirect germicidal effect* by the formation of hydroxides which act as solvents of the culture material provided by devitalized tissues and wound exudate.

"3. *The synthetic chloramines* are more stable compounds of chlorine than the hypochlorites and therefore can be used in

greater concentrations or larger germicidal masses. They act practically as reservoirs from which chlorine is slowly and automatically given off as the tissues present the necessary reacting substances (bacterial or tissue protein). Dunham (*Surgery, Gynecology and Obstetrics*, February, 1918, p. 152).

"4. The *hypochlorite solutions* are indicated where there are large masses of dead and devitalized tissues or profuse tissue exudate which cannot be removed by mechanical means. They should not be used where such are not present or applied to tissues poorly supplied with blood, such as, tendons or cartilage.

"5. The *chloramines* are indicated where there is but little, if any, dead tissue, and where the wound exudate is moderate in amount. Their only value is as a germicide. When in the human tissues, they slowly liberate their chlorine over a period of from three to twenty-four hours and in sufficient quantities to automatically unite with the bacterial and other proteins present in the wounds."

ADRENAL EXTRACTS IN PNEUMONIA

Upon pneumonia and other infections, involving the respiratory apparatus in particular, the adrenal and also the thyroid glands have a very great bearing, says Sajous (*N. Y. Med. Jour.*, Feb. 14, 1920). Death is due primarily to adrenal failure the expression of which is: "rapid lowering of the arterial tension, marked lividity, edema of the lungs and extreme asthenia." This view harmonizes with the mortality records wherein the senile form of the disease predominates. The senile are prone to succumb, for the reason that, in old age, the adrenals are subnormal and functionally deficient. Support with the corresponding extract is warranted on this assumption.

Bohr, the Danish physiologist, was the first to account reasonably for the phenomenon of respiration. With Henriques, he showed the presence in the alveolar walls of a substance (oxydase) capable of absorbing the atmospheric oxygen. This substance is the product of the adrenal glands, as later investigation revealed. This explains the favorable action of adrenalin in asthenia and heart failure following acute infections. Further, it explains the favorable action of strychnine, which stimulates the adrenals, to the end that there is a marked increase in the adrenal hormones, an augmented oxygen intake and correspondingly a greater carbonic-acid output.

As for the thyroid, it has a defensive function which all the time is operative against infection. That is why it is that focal infections, dental, tonsillar, intestinal and many others, so frequently cause hyperthyroidism. The gland becomes enlarged on account of having more defensive work to do. It is a normal process so far as the gland is concerned.

Abnormal and sustained hyperthyroidism hastens metabolism and there is excretion of phosphoric acid. This is as we expect. The myelin of nerves is rich in lecithin, or phosphorized fats, and we know that thyroid secretion, when in excess, breaks down fats. Hence both nervous and mental symptoms, and the desirability of rest.

CERTAINTY WITH DIGITALIS

Very properly do West and Pratt (*Jour. A. M. A.*, July 10, 1920) remind us that much of the digitalis at the disposal of the prescriber is below standard, even so far as actually to be inert and unfit for use. This being so, it is not surprising that so little success is had in heart cases with this remedy which, in reality, is a most valuable one, fruitful of results when given in preparations of assured reliability and known potency.

Let such a preparation be given in a suitable case and the effect following an ample dose is often striking. Always, a dose large enough to give a demonstrable effect is desirable; nor is serious mishap apt to arise if one knows the strength of his preparation and uses ordinary judgment.

The writers prepared a dried aqueous extract of the digitalis leaf which they employed in fifty-five cases, some of which are reported. Usually, the results were satisfactory, we are told.

In point of fact, a similar product, both in tablet and powder form, has issued for some years from a leading laboratory. It contains all the desirable glucosides of the prime leaf and is standardized upon frogs and guinea-pigs before being packaged.

Let's Talk it Over

Red Cross Notes

A Year's Accomplishment

THE nation-wide public-health campaign of the American Red Cross has now been under way for about a year. What has it accomplished?

The first step was, to turn the attention of the chapters to the use of the Red Cross Nursing Service in the public-health field in a great proportion of the rural districts, this field has hardly been touched; yet, it is here that lie the causes of the fact that astounded us at the outbreak of war—the fact that thirty-five percent of our young men between the ages of eighteen and thirty-five were physically unfit to be soldiers. We are just beginning to come to our senses with regard to health,—just beginning to understand that civic health is just as tangible an asset as civil government or education, or fire protection, and that it creates a responsibility that rests on the community and on each individual in the community. The chapters were quick to realize the organized service that the Red Cross, with its war experience behind it, could give, and set to work to interest their communities, and in every way—particularly by cooperation with existing health agencies—to push the idea.

Meanwhile, a great effort was made to obtain from Red Cross nursing personnel a corresponding interest in rural health problems. To this end, they were urged to take the course in Public Health Nursing offered by various schools and colleges. The growing demand for nurses in the rural field, and the much needed assistance rendered to hundreds of nurses by Red Cross scholarships, caused a remarkable boom in the schools. The Red Cross is now cooperating with the American Nurses' Association, the National League of Nursing Education and the National Organization for Public Health Nursing to conduct a national campaign to recruit student nurses for the schools, as there is a noticeable shortage, not only among graduates, but among student nurses in the hospitals.

On May 31st, 1920, there were eight hundred and thirty-one public health nurses at work in Red Cross service. Today, there are well over a thousand, and the Red Cross has calls from all parts of the country for twice as many more, as soon as these can be recruited and trained.

Another important activity in the Department of Nursing is, the extension of the courses of instruction. An effort is being made to bring the course in Home Hygiene and Care of the Sick to every woman

and girl in the country, not as a preparation for nursing as a livelihood, but as a preparation to meet the ordinary emergencies that arise,—to help them keep their families in health, and to enable them to care for them intelligently when they are ill. During June, 1920, more than thirteen thousand certificates were issued to women and girls for this course, and this does not represent in any degree the numbers who have had instruction, since many enter the course who do not take the examination. Nevertheless during the past year, ninety-two thousand women had instruction, and more than two thousand enrolled Red Cross nurses have been prepared and are serving as instructors in this most important work. Many of these women, at work in remote country districts, have to cover long distances in their Fords in order to give their lessons.

The course in Home Dietetics has also been given generally through the country. Nutritional clinics are being organized in some sections in connection with this work.

In the establishment of Health Centers, the Red Cross has also done much good work during the last year. Two hundred such centers have been organized, and four hundred chapters are engaged in health work other than health centers.

First Aid and Disaster Relief, which have always been an important part of Red Cross work, are being broadened and continued. Over a million people altogether have taken the First Aid course, which has been introduced into a number of schools, factories, railroads and industrial plants.

During the past year, thirty thousand victims of flood, fire, hurricane or other unavoidable disaster were aided by the Red Cross. Emergency relief units have been prepared, each of which is sufficient to provide for one hundred refugees, and these have been located at strategic points, so arranged and labelled that they can be shipped at half an hour's notice by truck or train to the scene of a disaster. In addition, the chapters keep on hand an up-to-date list of volunteer workers, addresses of hospitals and other data which should be immediately available in case of emergency.

In discharge of its war obligations, the Red Cross is still caring for twenty-six thousand service men who are not yet out of hospital. In the Balkans, Poland, the Baltic States, Austria and Hungary it is still fighting typhus, feeding orphans, doing what it can to alleviate the frightful suffering that prevails all over eastern Europe. In a typical month, this year, it aided in these countries more than half a million persons.

For the continuance of this work, it now asks the support of the American people. In the two weeks beginning Armistice Day, November 11th, it will hold its annual Roll Call. This is not a campaign nor a drive—it is simply the time set for members to pay their dues and renew their memberships. Ten million Americans joined last year. It is hoped that the number will be greater this year, now that the public has begun to learn the necessity for the work. Will you do your part, by paying your dollar and signing your name, to make the Roll Call a success?

The Fourth Red Cross Roll Call

The Fourth Roll Call of the American Red Cross will be held during the two weeks from the 11th to the 25th of November. During that time, all of the ten million members who joined last year will be asked to renew their memberships, as an expression of their faith in the ideal of Service for which the Red Cross stands, and as an evidence of their desire to help carry out the after-war public health program of the organization.

This program, decided on after the signing of the armistice, aims to concentrate Red Cross effort on public health work in this country. Much has already been done. Last year, more than 30,000 disaster victims were given assistance, more than 26,000 men, still in hospitals as the result of the war, had Red Cross service, 92,000 women and girls completed courses under Red Cross nurses in home care of the sick. Community nurses have been appointed, First-Aid and Dietetic courses given, Health Centers established—in short, the Red Cross has endeavored in every way possible to carry out a nation-wide campaign against disease.

But, to continue, the Red Cross naturally needs the persistent support of its members. Last year, when the organization was in the transition stage between war and peace work, ten million, exclusive of the fourteen million Juniors, renewed their memberships. This year, with the peace work in full swing, the Red Cross asks each of these members to pay his dollar and join for another year. It asks all

those who, for whatever reason, did not join last year, to become members now. For, it desires to have the whole American people standing solidly behind it in the fight for a healthier America.

Red Cross in Service

The Fourth Red Cross Roll Call is not a drive.

It is not a campaign.

It is not an effort to raise any specific sum.

The $1.00 dues of 10,000,000 people, for 1921, are payable and this Roll Call is merely the organized activity of collection.

The American Red Cross, by its Congressional Charter, is officially designated for the following purposes:

"To furnish volunteer aid to the sick and wounded in time of war, in accordance with the treaty of Geneva;

"To act in matters of volunteer relief and as a medium of communication between the American people and their Army and Navy;

"To continue and carry on a system of national and international relief in time of peace and to apply the same in mitigating the sufferings caused by pestilence, famine, fire, floods and other great national calamities and to devise and carry on measures for preventing the same."—Act of Congress, Jan. 5, 1905.

Answer the Red Cross Roll Call, November 11th. Armistice Day, to November 25th —Thanksgiving.

The resources of the American Red Cross represent the Service Pledges of American citizens—dollar for dollar.

A DEFENSE OF COALTAR PRODUCTS

Usually, I find the articles in CLINICAL MEDICINE very instructive and entertaining. But, in the August issue, an article entitled "Increasing Frequency of Heart Disease" aroused my critical faculty. Much do I dislike the "chronic critic", and, therefore, I try to avoid criticizing as much as possible for fear of being classified with this type. Still, we must admit that criticism properly presented is very valuable. In this case, I beg to say a word, and you may call it a defense of coaltar products—indeed, of synthetics in general.

"Figures do not lie". Heart diseases are the scourge of this age. However, it would be very difficult to prove that coaltar synthetics are the causes of these diseases. I do not doubt that investigation would reveal the fact that alkaloids and other naturally-occurring substances are the cause of a greater number of these ailments than all the synthetics. For examples, I may name nicotine, alcohol and coffee as very potent agents. I think, we must also include, as a very prominent causative factor in heart diseases, our present-day, fast living with its accompaniment, neurosis; and, show me the neurotic with a normal heart.

I agree with you that self-treatment with the coaltar products by the laity may have in some cases, induced disorders in the heart structure or function. I doubt, however, whether this is a very important phase. At the best, a patient under "drug-store treatment" is running a great risk whether he buys a synthetic or a natural product. Many of the synthetics are very potent and the same is true of the nonsynthetics. This, in fact, is the true index of their real value. The fact that a tolerance may be built up for a synthetic is likewise true for any other drug; witness all our narcotic-drug addicts. If opium, morphine, strychnine, digitalis derivatives, and others were dispensed and administered with as much facility as the synthetics are, they would cause as much of heart diseases as the synthetics of today do. The trouble in this case is not with the synthetics but with the people. They should be educated to the dangers of promiscuous "drugstore", or self-treatment.

Chemical synthetics (whether coaltar or others) are here to stay, not because of their cheapness, but because of their merits. The physician, especially, finds a great source of aid in them. As an example, what would the doctor of today do with an arthritic patient without the salicylates, virtually all synthetics? The "sweetness of life" for the diabetic would be gone without saccharine. Another very promising synthetic recently introduced is benzyl benzoate. This remedy, in fact, seems to be a better antispasmodic in cases of uterine colic and dysmenorrhea than anything offered to this time.

To him who would care to learn the status of synthetics and synthetic chemistry in general, I recommend reading "Creative Chemistry," by Edwin Slosson, Ph. D. (Century Co., N. Y., $2.50). This is a

nontechnical presentation, and very readable.

ARTHUR E. LUND.

Chicago, Ill.

[We quite agree with Doctor Lund in his defense of the coaltar products and of synthetics. We have often expressed the conviction that the remedies of this class are blamed unjustly for damage that could not be properly attributed to them. Without a doubt, the synthetic remedies have enriched the physician's armamentarium enormously. The fact that they are very potent and possess possibilities for harm, does not argue against their employment. A remedy that is not *potentially* harmful usually is innocuous and often has but little actual value.

In this as in so many other instances, it depends very largely on "the man behind the gun," and it should never be forgotten that all potent remedies must be prescribed and administered with a great deal of "brains."—Ed.]

THE DOCTOR'S EXTRAMEDICAL KNOWLEDGE

Knowing it to be the policy of CLINICAL MEDICINE to maintain an open forum for the expression of opinions by the obscure physicians who have not the fortune to have any other letter appendages but their M. D., I take the liberty to write the following lines:

If there is any salient feature of your journal that should be commented upon and called to the attention of the doctors in this country, it is, the brilliant philosophical essays of Doctor Butler, not only for their literary value, *per se*, but because they point to a new era in medical journalism and may serve as precedent towards broader and more enlightening medical literature.

The adherence of the other medical journals to the policy of publishing in their papers articles of ultratechnical and professional topics, as well as the offering of a highly-technical curriculum in the medical colleges of this country is, in my opinion, essentially wrong. It is wrong because this policy emanates apparently from the erroneous belief that the domain of medicine is entirely physical, not spiritual.

Sight is lost of the fact that, in our daily practice, we are called upon to minister to our patient's souls as well as to their afflicted bodies, and, while we get an excellent preparation to help them in their physical troubles, we do not get any instructions as to how best serve them in their spiritual needs.

I often wonder why it is that the American doctor is held so low in social esteem, while his European brother occupies the highest rung on the social ladder. After careful observation, I have come to the conclusion that the difference lies in the two personalities which they represent. The European doctor is an embodiment of culture and refinement. He is more responsive to the demands of the times and is better acquainted with the problems of the day which demand intelligence for their solution. In this, the American doctor fails. I do not wish to say that it is the individual doctor's fault. It is due to the fallacious system of education in this country, which makes us take the back seat instead of occupying the first line in all cultural and spiritual enterprises of the day. The European doctor is, first of all, an omnivorous reader. Besides, being a linguist, he is well versed in all phases of human thought and intellectual endeavor. Though he may be an expert in his chosen field, he also has the knowledge, at least of a dilettante in all other subjects of education and enlightment.

Even in "dark Russia," a professional man would be called an ignoramus if he could not discuss intelligently about the Empiric school of philosophy, about the pantheism of Spinoza, the pragmatism of James, the style and diction of Longfellow's poetry, and so on.

No wonder, then, that the laity in Europe regards the doctor as a man of superior knowledge and accomplishments, not only when it comes to medicine. They believe him to have a keener and better understanding of matters spiritual and intellectual. In this country, our doctors are regarded by the laity as a commodity. The physician is held to be a man who fulfills his function of attending to their physical needs just as the butcher or the grocer does.

I remember my surprise when I invited some of my college friends for an evening's entertainment in my own four by four room. The walls of the mansard were decorated with gravures of Darwin, Tolstoy, Zola, and kindred celebrities of

universal reputation. Their names were absolutely unknown to these socalled educated men. I could easily forgive them for not being acquainted with the names and works of French or Russian authors, but I could not understand how they failed to know the names of Darwin, Huxley, or Buckle. Even such a renowned contemporary philosopher as Tolstoy was a stranger to them. Yet, they were known to be bright students who knew well their prescribed course; but, that prescribed course was narrow and of onesided scope which would perhaps make of them wonderful laboratory investigators and scientific research workers, but would not aid them in becoming broad minded, sympathetic, general practitioners to whom the laity could look up in times of mental and spiritual stress accompanied by physical derangements.

The period when the scientists believed in a psycho-physical parallelism is past. We know better now. We know that the material and psychical world converge and have an effect upon each other, and, in order to familiarize ourselves in both, we must study both.

It is high time, therefore, for the medical profession to recognize this fact and turn our attention also to the field of human endeavor along the lines of fine art, belletristics, philosophy and history.

In his wonderful articles, Doctor Butler displays a wide erudition and an intimate knowledge of literature of all times and all nations. By his personal example alone, he ought to stimulate our desire to drink at the fountain of knowledge other than medicine and its allied subjects, and thus become not only pill mixers, tonsil cutters and eye-glass fitters, but real doctors in accordance with the true etymologic meaning that the word "doctor" bears, namely, teacher and counselor.

B. W. Abramson.

Anamoose, N. D.

MATERNAL IMPRESSIONS

The theory put forth in Clinical Medicine for August, page 583, comparing the maternal impressions of the human ovum to that of the egg of a fowl, to my mind does not apply as analogous. We must remember the species are not alike, the incubation is not alike, the egg is separated from the mother during incubation, the ovum of the human remains attached and has the mother's circulation, her nutrition, nerve supply and every nerve impulse till birth. Every breath, nutrition and every nerve impulse has to do with the child during its incubation. Not so with the egg. Therefore, the comparison will not hold good. I have seen many results of maternal impressions, or socalled birth marks.

Frank Bates.

Coalgate, Okla.

TREATING VARICOSE ULCERS, CARIOUS TEETH

My treatment of varicose ulcers is so simple that many doctors will smile.

Rest in bed, common cornstarch made into a paste, the consistency of cream, with ½-percent solution of chlorazene, applied after the wound has been cleansed by an application of gauze kept moist with ½ to 1-percent solution chlorazene, has cured thirteen of my cases with no failure. An elastic bandage, applied after patient is on her feet, is all I have needed, with caution to keep bowels open.

If X-ray and radium treatment will kill cancer cells, why not see if apical abscess of teeth cannot be cured by their application? Will our dental friends tell us if chlorazene can not be used in filling temporary teeth? A child with decayed temporary teeth is very sensitive to pain and sometimes all decayed tooth substance is not removed, with consequent trouble. Would chlorazene help?

O. W. Okerlin.

Essex, Iowa.

THAT PROBLEM IN ECONOMICS

We hear much of late of the needs of our medical schools, and it is our opinion that these will become increasingly needy unless they add a thorough course in economics and efficiency to their curriculum.

From the ideal viewpoint, medicine is a noble profession and, from the practical side, it is a business made up of figures, costs, returns, profits, and losses. Looking at it in only one of these lights, we lack in perspective like a one-eyed man and fail in both respects. From the public's viewpoint, the success of the venture as a business enterprise is essential, for, no doctor, however learned, will remain so for any length of time if he cannot get the books

and appliances he needs or if his mind is burdened with debt and anxiety. Personal fitness is the first essential to professional success; the most difficult essential to maintain.

Nobody will venture the assertion that medicine is the most lucrative business in the world today, but we will undertake to claim that the most lucrative business in the field would not remain solvent long if run as our practices usually are and that, if it came to a showdown, most of us would be in the hands of the receiver. How many readers know within a thousand dollars of what their assets and liabilities are? What are the costs of an office consultation, a visit, an obstetrical case? Did you gain or lose last month and how much? What do you figure you should get for all your labor, care, skill, self-denial and discomfort which contribute so much to your agreeableness as a husband and father?

You don't know?

Then you are in the position of a merchant who would price his goods without knowing what the wholesale cost was going to be, by making a guess of somewhere between what his customers expected to pay, what he thought he could make a little profit by, and what he estimated his competitors were charging for the same goods. Think of all the stores in your town doing business in that way and you have a fair idea of the way we practice the great healing art, and, God help us! we hope to succeed. We must be optimists. Truly!

Now, let us analyze the letter under discussion (Sept. issue, p. 581). The doctor starts out with 25 percent given to charity. Where is the place, in this country, where 25 percent of the people are in need of charity? If there were any, the rest of the people there would be unable to pay even the small fee he charges. It is a safe bet that those he treats for charity have washmachines or send their wash to the laundry, while his own wife uses a washboard. I would be willing to bet that every last living one of them goes for an outing with his family five times as often as the doctor does, while the doctor needs it five times as badly. He tires himself out treating these people, and goes to those that do pay unfit to give them their money's worth or to make a good showing for himself. Is that fair to them? To himself? He foots the cost of doing that 25 percent of business himself; and that eats up the profits on a good share of the rest of it. Is that fair to his own family?

It is entirely probable that this doctor is in the plight he says he is and that, the more he does, the worse he is off, because he does it all at a loss. Think of charging the loss of 25 percent against the profits of 75 percent. Think of the simplicity of estimating one's business by one's bank deposits. Think of cutting down your subscriptions to journals as a matter of economy and then giving away your profits. If you can not make a profit farming a certain piece of ground with modern machinery, you cannot do it with a crooked stick for a plough. Either you need more ground, better ground, or a better market. I think that the Doctor has spoiled the ground and the market, and the best way would be, to get out and start over again with an eye to business so that he can practice medicine. How can you expect the public to know what your services are worth when you do not know what they cost?

The doctor is the most valuable man in the community and his value is increasing with his knowledge. Decrease this knowledge and you decrease his value and his income. If he uses the knowledge and makes the public pay a profit on it, he is running a professional business, increasing both his value and his profits.

C. W. Crompton.

Sedro-Wolley, Wash.

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[Doctor Crompton's discussion of that problem in economics, submitted recently, is eminently sensible. Truly, even with every consideration of the high dignity of his calling, with the keenest consciousness of its humanitarian aspects, the physician still must consider the practical, the business side of his work. The doctor who gives charitable services indiscriminately, harms himself, his family, his patients, and his profession. As Doctor Crompton points out, he wastes his strength so that he can not give his best to his paying patients. He deprives his family of advantages that he might procure, if he had the income he earns. He pauperizes his charity patients and causes them to lose their self-respect. Besides, they will be the first to turn on him if they think that a mistake has been made anywhere. Suits for malpractice are brought more often by charity patients or by dead-beats than by those who pay their

doctor bills promptly. The Doctor is not fair to his pay patients against whom he discriminates. Finally, he cheapens the work of the physician and thus injures his whole profession.

Nobody is more ready to extend charity than the physician. Nobody is more in need of restraint in thus indulging himself than is he.—Ed.]

THE HARRISON-LAW TRAP HOLE

I was arrested, recently, for "violation of the Harrison narcotic law." Two inspectors called on me and, showing their authority, announced that they had come to examine my narcotic records. Of course, I at once gave them *carte blanche*, handing them my book of records and orders. One of them proceeded in whip-cracker style to look them over; the other was a rather silent partner.

The former cited a case that I will designate as B. Besides reading the records of this case, he asked me about the patient and I answered him fully. In part, I said that B. has been a patient of mine since May 2, under general treatment and, more especially, for the cure of morphine addiction. For this, I hold a written detailed agreement, signed by B. and his mother.

I had requested B. to bring in both father and mother. The mother said that the father was 80 years old, too old and deaf to understand. So, we three concluded matters of procedure as to control and cure of the patient. The treatment was to be general and by gradual reduction of the morphine.

The inspector remarked: "You don't know that he is getting morphine from two other doctors and from Hannibal?" I did not know that, and, I was the goat.

The danger of this very complication was pointed out by me in The American Journal of Clinical Medicine (1918, p. 308). In that article, I stated that the names of addicts should be sent, by the doctors all over the state, to a proper central legal office, together with the amounts of morphine or other drug each patient is using. These names, and the names of the physicians who e patients they are, should be listed in a bulletin sent to every doctor in the state not less than once a month. Then, when an addict comes in, the doctor will look at his list and know immediately whose patient it is, and the amount and kind of drug being used. Such a provision in the Harrison Law, and fully enforced, would have forestalled this patient B. getting "dope" unbeknown to me. Then, such a case would not occur.

To procure this reform of, or amendment to, the Harrison Act, I entered into correspondence with Congressman Mr. King and with Mr. Charles B. Towns, an influential authority in such matters, with a view to bringing it up in Congress. The end result of this effort, continuing to the end of 1919, was, for Mr. Towns to declare it a Board of Health matter. Mr. King said: "the best course would be for your national organization to come here with a certain approved amendment and then battle for it nationally."

The reader will bear in mind that this Harrison Act is also a revenue act, for the enforcement of which $150,000 is appropriated; besides, each doctor pays his little old $3.00, by way of annual tax for license to prescribe narcotics.

One hundred and fifty thousand dollars is a pretty large club over the average doctor's head. Even a look at it gives him that "night before" heavy feeling, and a thought of having it superinduces a blind staggering in his *iter a tertio ad quartum ventriculum*.

My friend, the Revenue Agent, wanted to make a showing, a run for his money. He seized and took away all my daybooks for the past three years, including 1920, in every-day use; also order-books and so on. He said, he would bring them back next day; but, didn't do so.

Instead, came another inspector who invited me to go to the Commissioner's office in the courthouse. There, questions and answers were taken down as to specific cases.

A complaint was filed, thereupon, saying: " . . . that the writer did unlawfully sell a certain quantity of morphine (14 grains) to one B., on July 3, the said sale not being in pursuance of a written order of the said B. on a form issued for that purpose by the Commissioner of Internal Revenue; and against the peace and dignity of the United States."

Now, bear in mind that this patient had been under general treatment since May 2, and using the while twenty-seven or more different remedies not counting the morphine running along with the general treat-

ment. It is singled out of all this: that I sold the morphine.

The next day, some of that $150,000 for the enforcement of the Harrison Act was utilized so as to cause the appearance, at my office, of a United States Marshal who placed me under arrest and took me before the Commissioner. Uncle Sam now was a block in the cogwheels of my business.

It was a lock-up or a put-up. I telephoned for a friend to come and go my bond. He came. His property was not acceptable under a Federal law. I telephoned for a retired friend but could not locate him. Then, I thought to try the cashier at the bank where I transact business and, presto, it worked fine. Uncle Sam's own bonds (Liberty) and Jewish securities mixed together like magic.

Three thousand dollars filled the bill—and I was unarrested; free to go where I pleased. Only, if I go too far, these revenue sleuths will have $153,000.00 to pull down in place of $150,000.

This article may be regarded as a sequel to my article of 1918, as a concrete case illustrating the trap hole in the Harrison law.

I am not opposed to the Harrison Law, and, in fact, approve of it. However, it should be amended and enforced in such a manner that it can accomplish its actual purpose—that of preventing the *illegitimate* use of habit-forming drugs.

H. L. Green.

Quincy, Illinois.

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[In Clinical Medicine for September (p. 616), in commenting upon an article by Dr. W. A. Evans, of the Chicago Tribune, concerning the forthcoming trial of Dr. E. S. Bishop, of New York, for alleged infraction of the Harrison Narcotic Law, we declared that we are in sympathy with the efforts of our government officials to suppress the illicit sale of narcotics. But, at the same time, we called attention to the danger attending the practices of certain officials who seemed to do their best to handicap reputable physicians in the exercise of their bona-fide treatment of drug addicts.

Doctor Green's experience, which, by the way, dates several months back, is one instance out of many. It must be admitted that, unfortunately, there are men, holding the degree of M. D. and licensed to practice medicine, who abuse the privileges conferred upon them through their special licenses permitting them to prescribe and dispense narcotic drugs, and also alcohol—solely for medicinal purposes and in cases of urgency. Unfortunately, certain black-sheep of the medical profession have made capital out of the needs of drug addicts (whether due to narcotism or alcoholism, is immaterial) and have disgraced themselves by prostituting their position and prescribing the proscribed articles freely for the sake of money.

While it is admitted that such instances occur, the government officials entrusted with the enforcement of the Harrison Antinarcotic Act and of the eighteenth amendment to the constitution should bear in mind that the great majority of practicing physicians are reputable men and women and that they do not break the law knowingly.

Ample time has passed, since the Harrison Antinarcotic Act became active, to show its glaring defects and to make possible certain modifications that would cause this act to be beneficial in its operation instead of injurious. However, instead of promoting the successful treatment of narcotic-drug addicts, instead of giving reputable physicians suitable support and facilities for the treatment of these patients, all sorts of impediments are thrown in their way. We understand that Prohibition Commissioner John F. Kramer (a layman, we believe), discountenanced public clinics for the treatment or cure of drug addicts, claiming that the end results of such public clinics appeared to have demonstrated conclusively that the cure of drug addicts through such means is a failure and that hereafter no similar institution should have the endorsement of his bureau.

It seems that certain closed institutions conducted for the treatment of drug addicts are favored to the disadvantage of clinics and of private practitioners. Yet, is not the question justified as to whether these institutions can actually show better results than have been secured by clinicians and by many private practitioners?

It is time that medical societies, who actually represent the opinions and the will of the general practitioners, instead of only the theoretical views of a few self-appointed leaders, undertake the task (no matter how unpleasant it may be) of impressing upon the authorities the need of

sensible modifications in the Harrison Act. The Harrison Act should be, as it could easily be, a beneficial provision. It should make it possible for physicians to aid those who are addicted to certain habit-forming drugs and it should not be possible under its enforcement to annoy and persecute reputable physicians on flimsy pretexts or without any pretext whatever.—Ed.]

A LETTER FROM AN OLD SUBSCRIBER

I have been on the frontier settlements of Texas all my professional life meeting with all classes of people from all parts of the earth. Many very intelligent and many more on the other extreme.

I'll give one instance of the latter. On one occasion, I was called to see a man suffering from intermittent fever. I put him on a clean-up treatment for a space of three days. Knowing the fellow's mental caliber, I was very particular in giving him directions to take one-half of the medicine during the first day and to repeat the course on the third day. I myself gave him the first dose. At the end of two hours, he prepared the entire quantity (8 doses) and swallowed all at once. You will understand that I had another call to see him within twelve hours. Results, he suffered some physical disturbance and I got a good cursing. With this to begin, I could write for a month. Changing the subject:

I have passed fourscore years, spent fifty years of that in the saddle, practicing medicine, carrying and dispensing my own medicines for, we hadn't any drug store. We often prepared our tinctures and compounded other drugs.

In our surgical cases (there were no local hospitals in those days), we would administer the anesthetics, turn them over to some steady-handed nurse and proceed to operate. We knew nothing of antiseptics other than soap and hot water. We would amputate a finger in thirty seconds or less time, and an arm in three minutes. After all, we were just about as successful as is the modern surgeon with all his aids and modern paraphernalia.

During the civil war, I took off a soldier's hand just about the wrist; we discharged him. The next morning, he mounted his horse, rode home a distance of 200 miles under an August sun, riding 30 to 40 miles a day with but little suffering or inconvenience.

It was in 1892 or 93, that I had my first introduction to The Alkaloidal Clinic. I read it, cherished it, and looked for its monthly visits as an old friend. Will never forget its old editors, Doctors Waugh and Abbott, as long as I keep my mind. While I never met either, I feel like we are and were old-time friends. I always think of Doctor Abbott as a man of my own heart; his way of dealing and treating his fellow man appeals to me. We were certainly made up of the same stuff.

J. S. Eddins.

Ingram, Texas.

[Thank you, Doctor Eddins. We always enjoy hearing from our old friends. Your experiences are entertaining and, also, carry a lesson. May the evening of your life be peaceful and happy.—Ed.]

THE PHYSICIAN'S READING—AND REMEMBERING

One of the problems for the busy general practitioner is, how to keep up his reading of current medical literature. It was formerly my mistake to tear the wrapper off of my magazines when they arrived, look through them, reading an article or two, then lay them on a stack of many others intending to read other important articles later. When, later, a moment's time to read was available, I did not know what I had read and what I had not read; therefore, many valuable articles were filed away unread.

To remedy this situation, I now begin at the front of each magazine, and read each article that I care about. When I have to stop, I fold over a page so that a corner projects above. Then, when I have time to read again, I know just where I left off and do not lose any time running over articles the second time.

One frequently finds articles that he would like to have handy for future reference If these are simply torn, or cut out, they soon accumulate, are in the way, and are ultimately discarded in a mass. To overcome this difficulty, I turn a page over with a corner projecting *at the bottom* of the magazine, to mark any article I may wish to file away.

Now, I keep a scrap book which is a large jeweler's catalogue. Along the edge,

I have adhesive thumb markers, each with a department of medicine written on it, as, "Obstetrics," "General Medicine," and so on. Between each two, I allow the proportionate number of pages that I expect that department to occupy. At the beginning of each department, I insert some blank pages for index.

When I have accumulated a dozen or so of current magazines which I have read and have ready to file away, I take each one and open to the pages turned down marking articles that I wish to preserve. If the article is short, I cut it out and file it in the proper department in the scrap book, writing down the title and the page where it is to be found on the department index sheet. If the article is long or I think I may not wish to refer to it in the future, I simply mark down on the appropriate department index sheet the title of the article, and the name, date and page of the magazine in which it may be found. I keep all my medical magazines, and file them away, not exactly in order of issue, but sufficiently so that it is easy to find any particular one.

I do not bother to paste any articles in the scrap book but lay them in loose, using care not to spill them out.

It is really surprising how little bother this scrap-book method is. Often, several magazines will not have a single page turned down to mark articles that I wish to file. Then, one may have several such. It takes but a moment to record these.

It is also surprising how valuable the scrap book is. When I wish to read up on any particular subject, I can usually find just what I want in the index of that department in the scrap book, just as easily and quickly as in a textbook; and, often, valuable material not to be found in any textbook. My scrap book contains the complete series of articles published in *The Journal of the American Medical Association* entitled "Disturbances of the Kidneys," "Practical Pharmacology" and many other valuable articles too numerous to mention. It is a loose-leaf system of medicine containing just what I want and nothing worthless to me; all this, merely at the cost of my numerous current medical journals.

By simply indexing and not actually putting many long articles in the scrap book, I avoid filling it with some articles to which I may never again wish to refer; while, yet, I have them at a moment's notice if I do need them. A card-index file large enough to contain whole pages from the large magazines would be more convenient and roomy than a scrap book.

I pass along this non-laborious and quick method of making one's reading systematic and of filing, for handy reference, things worth keeping, as it is a solution to a problem confronting many physicians.

C. Elmer Frey.

Ceresco, Nebraska.

[It is not so much the manner in which important information is filed away for later reference, as the fact that it is preserved. There are many and differing methods, each one having its advantages and drawbacks. This problem must be solved by every one for himself. However, the important point is, to read with a view to later application of the information acquired. Hence, the necessity for filing, indexing, and preserving instructive articles.—Ed.]

TODAY'S TREATMENT OF MALARIA

During and since the great war, the medical journals have repeatedly directed attention to the ravages of malaria. With the armies of the allies in the east, and also on the French frontier, it has caused manifold disability and loss of life among the soldiers on the advance line. They were treated as well as could be under the circumstances, and quinine in one form or another, and in different ways, was insisted upon as the essential, all-important remedial agent.

When the patient did not yield to its remedial action by mouth, it was occasionally employed in rectal injections or as suppositories, but, far more frequently, by intramuscular or intravenous injections. Both the latter have forcible drawbacks. Unless given with great care and with specially soluble salts, they cause pain, abscess and other disagreeable effects. Besides, these methods are not always successful in curing the attack and surely not reliable in preventing relapses of the disease.

Pernicious forms of malaria are, we know, often fatal and very rapidly so. It behoves us, therefore, to do our very best

in the way of treatment and save our patients from death or permanent disability.

I know of two remedies that will accomplish this, and only two. I do not wish for a moment to have it thought I am the originator of them. They were used long ago and by many excellent clinicians and trustworthy observers. One is Warburg's tincture or extract, the other is compound tincture of bark. On more than one occasion, I have affirmed the statement in written articles or in remarks before medical societies. Obviously, I have not been followed by many, if any, at present in the practice of medicine. In the important debates in England, during the past year, on the treatment of malaria, these remedies have not been mentioned a single time. I have written both to *The Lancet* and *The British Medical Journal*, emphasizing the fact and its great practical importance, but, hitherto with no effect, as my letters have not been published.

And, yet, over one hundred years ago, Huxham, an English writer, wrote and insisted upon the great value of his tincture in curing obstinate cases of malaria. This I have verified in my own experience, time and time again. As to Warburg's tincture, or extract, there is absolutely nothing equal to it, in those pernicious fevers formerly known as Chagres fever, and which are contracted on the Isthmus or in South America. An English physician made this known years ago, with regard to the malarial fevers of pernicious type contracted in the far east; and the late Dr. Alfred L. Loomis again affirms and corroborates it in his "Practice of Medicine." I imbibed its use from him, while serving as his clinical assistant, and I have on not a few occasions had good reasons to be grateful to him in my treatment of severe and threatening cases of malaria.

Aside from the danger to life and of rendering the individual affected by it utterly unable to do his work, the economic loss to the public occasioned by malaria, is very great. We all know, of course, that prevention of disease is far better than cure, such cure can be after the disease is contracted. For this reason, the work and generous liberality of the Rockefeller Institute by reason of its founder's inspiration as benefactor of men, is beyond praise. Notably, this is true now in our southern states where money is spent with a lavish hand, to drain swamps that breed the pests, namely, the anopheles mosquito which carries the malarial microbe in its body, after biting a malarial subject, and then carries it to and inoculates another person that was, until that time, immune to it.

Therefore, of course, drain swamps, use petroleum oil in abundant quantity to kill all mosquito larvæ, but also try, so far as may be, to cure radically, if possible, those persons already diseased with the malarial germ, and thus prevent its transport to a healthy individual, if perchance a few anopheles should ultimately and despite our best efforts, escape destruction.

Those who wish to read a brief article on this subject written by me a little over two years ago, I would refer to the *Medical Record*, New York, for May 18, 1918.

BEVERLEY ROBINSON.

New York City.

IMPETIGO IN CHILDREN

There has been an extensive epidemic of impetigo among the children of this section, all summer long. Every day, several children are brought to me with this disease, as I have been rather fortunate in its management. Where the course of the disease has been running a number of weeks under the simple zinc-oxide ointment used by most physicians, I have been able to discharge most cases in a week or ten days. In some of the cases, the areas of inflammation and scabs have covered a large portion of the surface of the face and neck, making unsightly objects of the little sufferers. In my twenty-seven years of practice, I have never seen this disease in so virulent a form, nor do I remember so extensive an epidemic of it.

The treatment that has proven so quickly successful in my hands, in the way of shortening the course of the disease and quickly cleaning up the skin, is as follows: Rub into the "scabby" portion of the eruption an ointment containing storax, resorcin, menthol, camphor, carbolic acid (5 percent) and sulphur, in a petrolatum base. A physician's proprietary article known as "storaxol" covers this formula nicely, as it is somewhat tedious to prepare extemporaneously. I do not put any dressing over the affected surface, but simply give

instructions to rub the ointment in well and leave the areas open to the air.

Regulation of the bowels and elimination of meat and grease from the diet is all there is to the further management of the case. Perhaps, physicians in other sections may be having this epidemic as we are having it here, and they may be interested in the above.

H. S. Brevoort.

Coffeyville, Kansas.

[Naturally, we wish that Doctor Brevoort had given a clearer idea of the character of the impetigo he has had to deal with. Dermatologists now recognize three varieties of impetigo, namely, impetigo streptogenes, impetigo staphylogenes and impetigo vulgaris, this being of polymicrobic origin.

In the streptococcic form, the initial lesion is from pin-point to melon-seed in size and is a tense or flaccid vesicle containing a seropurulent fluid. This blister may rupture or dry with a central crust, while enlarging peripherally. A congestive area surrounds the bulla. In from four to eight days, the crust separates, leaving a pink or dark-red macula which persists for a fairly long time. This form of impetigo ordinarily appears about the mouth, nose and ears. It is not usually as resistant to treatment as the other forms; but, frequently, especially in the debilitated patient, it is accompanied by more or less swelling of the adjacent glands and systemic disturbance.

Impetigo vulgaris, the variety most frequently observed among children and often termed impetigo contagiosa, begins as a streptococcic infection; the typical bulla of that form becoming purulent, then drying at the center, while extending peripherally and thus giving rise to the wellknown circinate, crusted lesions. Later staphylococcic pustules appear. In this variety, the glands are almost invariably enlarged. The eruption (postcoryzal) begins near the nostrils, corners of the mouth, near the eyelids, on the ears or in the occipital region. Darier expresses the opinion that impetigo in children is always associated with pediculosis capitis. This writer has, however, treated several cases in which lice were absent. In this variety, there is a marked tendency to recurrence due to the persistence of virulent pyococci in the lesions, which appear as redness, with, perhaps, some crusting behind the ears, alæ nasi, corners of the mouth (*perlèche*) or even as a somewhat diffuse seborrhea. Impetigo of the mucous membranes is not uncommon, especially astride the free borders of the lips.

Unmixed staphylococcic impetigo is characterized by pustules generally surrounding a hair and containing a thick yellow pus. The pustules are usually multiple and grouped in one or more regions, appearing however, upon any part of the body where the corneous layers have ceased to oppose an effective barrier against the invading cocci. This is perhaps the most superficial and easily controlled variety of impetigo.

The treatment instituted by Doctor Brevoort evidently meets the requirements; but, the present writer believes in softening and removing all crusts by the use of moist dressings or sponging with a mildly alkaline antiseptic solution. He then applies, three times a day at least, a solution of cupric sulphate and zinc sulphate in camphor water, the formula being: cupric sulphate, 2.0 mils., zinc sulphate, 7.0 mils., aqua camphori (sat.), 300.0 mils. Filter. For use, add 1 ounce to 6 or 8 ounces of water. As soon as a clean surface is secured, a simple boric-acid or zinc-oxide salve is applied freely and often. It is usually desirable to add ½-dram of creolin to each ounce of ung. zinc oxidi.

Always, arsenic sulphide, gr. 1-64, is given after meals, and calcium sulphide to saturation. The diet is carefully regulated and free elimination maintained. Occasionally yeast can be given to great advantage.—Ed.]

LETTERS FROM FRANCE—XXVI*

The realization of the plan to erect an American Memorial Hospital in Rheims is now certain. Mrs. Benjamin G. Lathrop, president of the American Fund for French Wounded, who went to the United States to obtain $100,000 for the erection of the hospital, has returned with a fund of $200,000 subscribed through the 600 committees of the society throughout the Union.

"To get this money, I traveled through every State in the Union. I was astounded at first at the amount of misinformation that I found everywhere in regard to France. The many little grievances that

*It should be kept in mind that these letters were written several months ago.—Ed.

had been brought home by the soldiers have assumed large proportions, while German propagandists are again spreading lies among the gullible. The French Government is doing nothing to combat this evil. It is not our nature to organize propaganda, the French claim. Yet, it is imperative to take some action.

"I did my best to convince the Americans that France needed their help. Where, formerly, I had but to ask for money, this time, I had almost to plead for it. I pointed out that no memorial to the American dead in France could be more fitting than the proposed hospital in Rheims. I spoke of the temporary hospital there being operated by a heroic little band of women doctors of the Women's Oversea Hospitals. I spoke of the refugees being cared for, clothed and fed, and of a people broken and ruined by four years of war. I told them of the ruins and filth in which people had been forced to live, and are still living.

"All this and more I repeated time and again until at length, despite the grip of the German propagandists, I won them over, and they subscribed whole-heartedly. Instead of the $100,000 I had asked for, I got $200,000. Aside from the general contributions from big cities and States, individual contributions poured in for a roof-garden for convalescent children, and a dispensary.

"Beside the hospital building fund, a special endowment fund of $600,000 has been raised, each State endowing at least one bed in the hospital in honor of its dead. As there will be 100 beds, each will be endowed for $6,000. This fund has been placed with the Central Trust Company, New York, for investment, and the accrued interest will be forwarded yearly to defray administrative expenses.

The ground for the hospital has been given by the French Government. The building, the plans of which have been drawn up by American and French architects, are to be erected by an American construction company which will utilize French labor.

"The American Memorial Hospital will be the only American organization in Rheims. Within its walls, will be carried on the work that was accomplished so untiringly by the earnest band of American women who labored for France during her days of stress. Raising itself up amid the ruins and havoc wrought by Germany in Rheims, it shall stand forever as America's answer to Germany's lies."

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Sir Charles Parsons, in his presidential address to the British Association, mentioned atomic energy as a possible substitute for coal in the future. It is no exaggeration to say that the power to utilize the energy locked up in atoms, if that power should ever be put into the hands of mankind, will cause a revolution in the conditions of life on this planet too stupendous for us to conceive.

To realize what is meant by atomic energy, it is necessary to have a conception of an atom. Literally, an atom means that which cannot be cut, which cannot be divided any more. This is rather difficult to imagine because, if you have gone on dividing something—say, a particle of gold—an infinite number of times, there must remain two halves which have resulted from the final division. If you try to continue the process of division, the result will be, not half-atoms of gold, but, something which is not gold at all—in fact, the gold atom would be squashed beyond recognition.

Atoms vary considerably with regard to their weight. One of the lightest atoms known is that of hydrogen.

By means of an analogy, it is quite easy to get a fairly clear idea of the structure of an atom of hydrogen, which modern science has shown to be rather like a miniature solar system. St. Paul's Cathedral and a thousand peas are the only materials needed. The inside of St. Paul's is to represent the space occupied by the atom. A thousand peas at rest, motionless inside this vast space would not be noticed. But, now, you impart to the peas virtually unlimited energy. They bounce from the floor to the roof, from the roof to the walls with inconceivable rapidity, colliding with each other and being deflected from their straight paths in the process. The activity and rapidity of movement of these thousand peas inside St. Paul's is so great, each pea would be in so many places at once, so to speak, that if you looked in at the door you would see not a mere mist of flying peas but a solid wall of peas, so impenetrable that you could not force your way into the cathedral if you tried. The astounding thing about these peas, or particles as they are called

when referring to the atom, is, that they are not matter at all. They are charges of negative electricity. Thus, speaking scientifically, there is no such thing as Matter, there is only Force.

Calculations have been made concerning the amount of energy which is locked up in an atom. It is simply stupendous. If man could only find the key to utilize it! We could thaw the poles and irrigate the Sahara. We could have any sort of weather we chose. We could shake the planets in their orbits—and the high cost of living would be solved.

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The bill for the placing of a tax on visitors at French health or pleasure resorts has been passed by Parliament, after slight modifications in the Senate, and is now law.

The tax is a small one and is to be levied by the municipal authorities of each locality to the improvement and development of which the money raised will be devoted entirely. The measure is calculated to develop to a great extent the attractions of French resorts. Visitors will thus benefit while having to pay but an insignificant tax.

Hitherto, health and holiday resorts have been left to develop as best they could. With few exceptions, centres possessing natural features of value or interest, such as springs or medicinal waters, were considered by the State as almost beneath attention. They were either neglected or exploited for individual or local interests instead of being nationalized, to use a word now so much to the fore.

A new spirit, however, is making itself felt as a consequence of the necessity, created by the war, of getting the fullest possible value out of the country's resources of every kind. It was inevitable, in such circumstances, that attention would be turned to the mineral springs and climatic advantages of France, with the object of increasing their value to the nation. A first move in this direction has been made by the passage of a law creating a small tax on visitors taking the "cure" or a holiday at health and pleasure resorts in France.

Such a tax has long been applied at the German and Austrian watering-places and has given satisfactory results. According to the bill which was passed in the Chamber of Deputies, French resorts are to be divided into two categories—hydro-mineral stations, that is, localities where medicinal springs are situated, and climatic stations, that is, resorts one of the attractions of which is their climate. Such resorts are to be authorized to levy a municipal tax on non-residents, the entire sum that is raised annually to be devoted to the improvement, development and embellishment of the particular locality concerned. The tax will be not less than ten centimes and not more than one franc a day for each visitor. Exemption is granted to persons domiciled in the resorts; to invalids in needy circumstances and to ex-soldiers wounded or maimed in the war or invalided as a result of illness contracted in active service. At the end of a month's visit, no further tax is due.

This project has been under consideration for many years, and probably would still be under consideration but for the war, which has forced adoption of many measures that have long been in operation and have proved their value in other countries. The law establishing a "cure" tax also creates a National Bureau to facilitate touring in France by improving the means of transport and circulation for tourists to collect and place at the service of travelers all information that may be useful to them, and to make known, here and abroad, the natural beauties, the medicinal resources, and the artistic attractions of the country, including Algiers, and the French colonies.

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Lax enforcement of the ordinances providing for the control of dogs is blamed by Dr. Albert Calmette, assistant director of the Pasteur Institute in Paris, for the marked increase in the number of cases of rabies since the war. The average number of persons receiving treatment daily for dog-bites, in the last few months before the war, was twenty-five; the average in the last two months has been 125. This does not mean that number of new cases each day, but, as each person receives treatment from fifteen to twenty-two days, this average is maintained.

The ranks of the police were depleted during the war, and many vacancies have not been filled. With its numbers reduced, the police may not have time to devote proper attention to the measures designed to protect the public from dogs. Whatever the cause, it unquestionably is the

truth that the ordinances are not being enforced, and I consider this the only reason for the increase in cases of hydrophobia. Many dogs are not kept on leash and large numbers roam unmuzzled. There will be no checking of the epidemic until these conditions are corrected, said Dr. Calmette, who heartily approves the British regulations providing for a quarantine of six months for dogs brought into the country, and he believes that the adoption of a similar regulation, by France, would work great benefit. "However," added Dr. Calmette, "such a rule would have no effect upon the present situation. The only remedy is, the enforcement of ordinances. The police authorities should be aroused to the necessity of safeguarding the public by the simple expedient of seeing that rules are enforced, and owners of dogs can assist by muzzling their pets and keeping them on leash."

B. SHERWOOD-DUNN

Paris, France.

"CRIMES THAT THE DOCTOR NEVER REPORTED"

Doctor Bryce, of Richmond [See this Journal, Aug., p. 526.—ED.], will never know what memories he aroused, that we thought, and had hoped, were sleeping in our mystery box and would sleep on undisturbed forever.

The death of Joe Hines' boy, Johnnie (10 years old) rises up like the drop of blood "on somebody's hand to haunt them." It was mere suggestion on my part, but, Johnnie took it to heart and, blamed fool that he was, he died.

I linger around Mattie Morris's death-bed as though I were charmed. I can hear her tell old Mammie Sally now, "Tell Him, Aunt Sally, that I have been bad but I have never been mean." "Yes, Yes, Chile. He'll temper de win's to de shored lam'."

For one occasion, I stepped off an early train to a nearby town from where I lived. I saw three young men standing by a little fire that they made with some old tornup boxes. As I moved to the fire, three of them walked away (a personal difference we had had was the cause). I spoke to the other. "Doctor, how are your typhoid cases coming on?" "Fine, I hope," was my reply and I walked on. The three girls with typhoid fever that I was treating had the kind of typhoid that boys never suffer from and were sisters to the boys that left the fire when I walked up. The next year, I was at court trials for murder, in which the young men leaned on me as their main stay. Where the trouble arose from, never reached the day. There were too many people that would have been brought into the cesspool of scandal, and too many heartaches.

And the Lord said unto Cain, "Where is Abel, thy brother?" And he said, "I know not. Am I my brother's keeper?" Gen. IV, 9, 10. "What hast thou done, the voice of thy brother's blood cried unto me from the ground."

The human race could have had no lower moral beginning than that indicated in the fourth chapter of Genesis, but the Lord handled it without advice from Adam and I always leave the matter in the hands of those interested, and, doing from a professional standpoint all that I can, let the rest take care of itself.

But enough—this is calling up the dark side of a practice that has run over a period of forty years and if I say it myself, 40 years that are rich in memories good and bad, glad and sad.

A. F. KIRKLAND, JR.

Savannah, Georgia.

INSTITUTE OF VENEREAL DISEASE CONTROL AND SOCIAL HYGIENE

While this issue of CLINICAL MEDICINE is being printed, information is received concerning an institute on venereal-disease control to be held in Washington from November 22 to December 4, 1920.

In arranging for this course, the Public Health Service organized a staff of instructors comprising the best men and women on these subjects related to the control of venereal diseases so that health officers, private practitioners, educators, and others interested may attend for a short period of intensive work and make themselves more efficient.

Further information can be secured by addressing the U. S. Public Health Service, Divison of Venereal Diseases.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

The Art of Right Living

Common-Sense Comments on Health, Happiness and Longevity

18. Hasty Eating

INDIGESTION, like the poor, appears to be always with us, and there is very little doubt that this is largely due to the hurried eating of meals, followed immediately by some employment that occupies the whole attention and takes up all or nearly all of the physical energies.

Sometimes the malady shows itself in excessive irritability, a sure indication that nerve force has been exhausted; the double draft in order to digest the food and carry on the business has been more than Nature could stand without being thrown out of gear. In another case, the person is exceedingly dull as soon as he has a few minutes of leisure. The mind seems a dead blank, it can move only in its accustomed channels, and then only when compelled. This, also, is an indication of nervous exhaustion. Others will have decided pains in the stomach, or a sense of weight, as if a heavy burden was inside. Others, again, will be able to eat nothing that will agree with them; everything that is put inside the stomach is made the subject of a violent protest on the part of that organ, and the person suffers much distress in consequence. Others suffer from constant hunger. They may eat all they can, and feel hungry still. If they feel satisfied for a little time, the least unusual exertion brings on the hungry feeling and they can do no more until something is eaten.

Scarcely any two persons are affected exactly in the same way, the disordered condition manifesting itself according to temperament and occupation. Employments that call for mental work and those whose scene of action lies indoors affect persons more seriously than those carried on in the open air or those that are merely mechanical and do not engage the mind.

All, or nearly all, of these difficulties of digestion might have never been known by the sufferers had they left their business behind them and rested a short time after eating, instead of rushing off to work immediately after hastily swallowing their food. Nature does not do two things at a time and do both well, as a rule. Everyone knows that, when a force is divided, it is weakened. If the meal were eaten slowly, without preoccupation of the mind, and the stomach allowed at least half-an-hour's chance to get its work well undertaken before the nervous force is turned in another direction, patients suffering from "dyspepsia" would be few. "It does not so much matter what we eat as how we eat it." While this is only partly true, it certainly is true that the most healthful food, hurriedly eaten and immediately followed by work that engages the entire available physical and mental forces, is much worse than a meal of poor food eaten leisurely and followed by an interval of rest.

The tendency of hasty down-town luncheons, upon the health and morals of all, ought to be pointed out with a view to impress on people's minds the importance of devising some remedy for evils so great and so inevitable. Many business men take a hasty luncheon at noon to prevent the stomach becoming too empty or save the system from too great exhaustion from the long interval between breakfast and the regular evening dinner. The object is good and the philosophy of it is founded on true

physiological reasons; however, the manner of the performance makes all the difference in the world. A change from our hurried, unsocial, piggish bolting of food to order, beauty, deliberation, and sociability of the table would increase tenfold our table pleasures, and add indefinitely to our health.

Learn How to Live.

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We are constantly devising plans for cutting our life short. We eat and drink it; we burn it up in our overheated houses; we exhaust it in overwork, worries and anxieties; we smash it in railroads and automobiles and drown it in steamers.

Rapid eating is especially injurious when it is caused by the hurry of business, or by anxiety, or nervous irritability, or by the common habit of "bolting" our food. Such eating is sure to produce indigestion.

The amount of food which you can eat and thoroughly masticate in twenty minutes will give you more nourishment and will sustain you better than twice the amount thrown into the stomach in the same manner in which a man usually packs a trunk.

There is hardly any individual who can not, by the study of health laws, modify his own disposition and substitute by training that which he was denied by inheritance.

Rapid eaters know little of the pleasure of deliberate eating, nor the luxury of satisfactory hunger; and, certainly, they are laying the foundation of disease.

A man too busy to take care of his health is like a workman too busy to sharpen his tools. Hurry is only admissible in catching flies.

There is no habit of the body, no function of any organ, which will not be injuriously affected, if not destroyed, by hasty and irregular eating.

You should not hesitate to change your methods if you are pretty sure you see a better way. The object of life is, to grow.

Haste literally makes waste. Few things more certainly and thoroughly muddle the brain than a sense of hurry.

It is probably not an exaggeration to say that, for nine-tenths of what we suffer, we are ourselves responsible.

People who shovel great vulgar mouthfuls of food into their mouths and bolt it down, as though they had but ten minutes for a meal, are gormandizers instead of polite people.

All reforms must have an initiative and the indispensable prerequisite is, to make people do them.

19. Variety In Diet

I DO not believe in a great variety of food at one meal—a ten or twelve-course dinner, or anything of that sort. Neither do I think it is best to restrict the diet to one or two or three articles of food, eating the same thing day in and day out. The digestive organs get into a rut and become sluggish.

As a rule, the more civilized a man becomes, the greater becomes his variety in diet. As I have said, variety in food does not mean a great variety at any one meal, nor does it mean rich pastries and indigestible stuffs. I think that a meal of two or three articles is really better than a greater number, but, each meal should be different from the others. Breakfast, dinner, and supper should consist of different articles of food and these should be varied from day to day. A variety of wholesome foods well cooked. The sensible housewife is the one who does not serve to husband and children the same things day after day until their appetites are cloyed and their stomachs go on a strike. The food should vary from season to season, from day to day, from meal to meal.

Eat meat, eat fish, eat vegetables, eat fruits, eat cereals; but, do not try to eat them all in one day. Remember, your body is made up of many different elements, and it is best nourished by many different kinds of foods. There is no single food, not even milk, that will keep a man in health and vigor for any great length of time. Even the domestic animals are kept in better condition by slight changes in diet or by changing from one pasture to another. Nature has provided such a variety of products for food that it seems only reasonable to conclude that they are of use in the nourishment of the body.

We may change our coat twice daily and substitute a new one as often as the fashion-monthly leader dictates a new style; but, no variation in clothes alters the personality; whereas the food we eat may either improve or deteriorate the character

of the body which constitute our soul-garment.

The fact that important changes in animal characteristics are produced by variation in food can not be doubted by any observer of birds and animals in a state of domestication. Seeing, then, that the food plays so great a part in those cases, it may safely be inferred that its effects will be still more apparent in the civilization of mankind. This being found true, is it not highly desirable that we should seek to adopt a diet, tending directly to improve the body, in order that it may become a more efficient vehicle for the mind, or, more correctly speaking, the Ego?

A sickly, waning appetite can frequently be stimulated by some exceedingly simple change in the commonest articles of daily food. For example, slices of dry bread are particularly uninviting, but, the same bread, lightly browned, with a delicately poached egg resting on the crisp toast becomes altogether another item in the daily menu. There are some forty or fifty ways in which to prepare potatoes; yet, how few are the tables where one sees the vegetable save in the stereotyped boiled, mashed or fried! A great variety of delightful dishes can be made with apples at all seasons of the year. There is no need to enumerate the host of what are known as "made dishes." It is always better to set on the family table, not, courses of elaborate dishes, but, a wholesome, agreeable and yet economical diversity of food.

The best route to health in relation to food is, by way of variety. Always variety! It need not necessarily cost any more than the deadly monotony, either in time, labor or money. In fact, it should cost less in all directions. A little practice, a list of foods for easy reference, and a sincere desire for health and comfort, these are enough to start the ball of strength and content rolling, a ball that will roll more and more smoothly as it gathers momentum with time and practice.

Learn How To Live.

The amount of abuse which the modern civilized stomach can withstand is an eternal monument to the perfecting powers of the evolutional survival of the fittest.

With some people, the question is, not, how much good is this food going to do me, but, how pleasant it will taste for an instant while it is passing through my mouth.

Have a variety of food, but eat moderately. No one can have good health, clear perceptions of right and a quick sense of wrong who indulges in overeating.

Abuse of the stomach at dinner will be repaid soon or late by that punishment which comes to the glutton.

Malnutrition may mean too much or too little food, as well as food of a wrong kind or too much monotony.

Monotony of food is as bad for the stomach as monotony of scenery is for the eye.

Don't forget that a penny spent on fruit does more good than a shilling on French pastry.

Vegetables and fruits are to be used most generously at that season of the year in which they naturally mature.

Some people seem to care more for what they eat than for how they feel.

There is a happy medium between eating everything and being squeamish.

Mere gratification of the appetite is very likely to shorten life.

Variety is a positive requisite even in the character of food.

As a man eateth, so he thinketh.

Drink more water, eat less food.

It is just as reasonable to feed a dog on dry grains and grass alone as for a man to subsist on a similar dietary.

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20. Activity

THE four great forces, at work in nature to keep us living and well, all merge into one great trunk or centre; and that is, activity. Life is like the great locomotive that goes screaming down our valleys and across our plains. The coal in the tender is like food to the man; both furnish the heat and are the source of power. The breeze that fans the spark in the firebox and which kindles the flame, that heats the water, that produces the steam, that turns the great drivewheel, is like "Flame or vitality in man." The drivewheel with its mighty plunging piston is exercise. The screaming whistle, the puffing smokestack, the ringing bell, the rattling wheels; all telling us that glad tidings or friends are being brought to us—is cheerfulness. All good and useful things are active. The cheerful fire that warms

us, or cooks our food, is roaring, cracking, dancing, leaping. The sparkling water that quenches our thirst comes trickling down over the pebbles, or falls in rain, penetrates the earth, until it strikes the bedrock, and then comes bubbling up again, ever moving. The light that comes to us from the sun is generated by vibration. The wind that blows is only the result of nature's activity. The air is only pure when in constant motion. A cessation of activity is succeeded by stagnation, and stagnation means disease and death.

Rest—yes, most assuredly, you must rest. But, get tired first, and then enjoy every moment of your rest to the fullest extent possible. What is it, to be tired? I'll tell you. There are two sources that supply the body with materials with which the blood is ever busily engaged in rebuilding or replacing the countless little cells that make up our body. The one is the food which is operated on by the digestive organs, and the other is the oxygen which is assimilated by the lungs. If our exercise is a little in excess of that which our bodies are accustomed to, the tissues of the body are broken down more rapidly than the blood can refurnish, and, with the flat chest and undeveloped lungs, the blood is not furnished with enough oxygen. Thus, the muscles and nerves are being starved and cry out for rest; or, in other words, urge that you cease to draw upon them until the blood has had time and opportunity to renew itself. If proper food is furnished, rest will stop the destruction of tissue; the lungs will soon furnish sufficient oxygen and the normal condition will soon be established. Nature provided many helps to digestion, such as cleanliness, pure air, sunshine, and cheerful surroundings; but, the only possible means of distribution, development, strength, and health are supplied by proper exercise.

Health, long life, education, progress; in short, everything of worth accomplished in life, depends on mental and physical activity properly directed. If physical stamina, health, and intellectual culture are to be attained, mental and physical activity must be so regulated and systematized as to not only develop symmetrically both brain and body but to develop one with the other simultaneously. An unsymmetrically-developed body will not have stamina or remain long in health, nor will a brain that is not all-around or symmetrically developed reason logically; nor, on the other hand, will a developed brain in a dwarfed body, or a dwarfed brain in a developed body, accomplish great things. All life is movement, it is its very essence.

Learn How To Live.

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The old man whose brain is sound, and who is not ashamed to keep on thinking and working, rejoices, even in the evening of his life, in the world and people and the happiness of youth, and enjoys love and consideration instead of being the object of aversion or ridicule.

Activity is the presence of function. An active man is seldom despondent. To be idle is to suffer. Activity may lead to evil, but inactivity can not lead to good. You have not a faculty of body, mind or soul, whose law of strength is not action.

Keep mind and body active. Fight vigorously against worry and despondency. One great remedy is, to take short views. It is no use trying to run away from difficulties, they are sure to overtake you. Face them boldly and they will often vanish.

Barring accidents or unhappy hereditary burdens, or the overwork which sometimes seems inevitable, it lies within the power of a great number of us to be ready for service 365 days in the year.

Obliterate everything disagreeable from yesterday. Start out with a clean sheet for today, and write upon it, for sweet memory's sake, only those things which are lovely and lovable.

Do not despise your situation; in it you must act, suffer, and conquer. From every point on earth, we are equally near to heaven and to the infinite.

Peace itself is a struggle; or rather, it is struggle and activity which are the law. We only find rest in effort, as the flame only finds existence in combustion.

It is not only the part of expediency but morally imperative for every one to do all that lies in his power to be well, steadily and joyously well.

All men desire happiness, but few know how to secure it. It is wise to seek for interests rather than pleasures.

We must learn our limits; we are all something, but not everything. We must not expect too much.

Every one is ruled by somebody, and it is better to be governed by oneself than by anybody else.

Among the Books

MOCK: "INDUSTRIAL MEDICINE AND SURGERY"

Industrial Medicine and Surgery. By Harry E. Mock, B. S., M. D., F. A. C. S. With 210 illustrations. Philadelphia and London: W. B. Saunders Company. 1919. Price $10.00.

The need of just such a comprehensive and authoritative work upon the subject mentioned in the title has been felt for several years past, not only by the constantly increasing army of practicians, giving all or a great part of their time to the care of employes of large industrial plants, but by the average city and town physician who is constantly called upon to treat individuals employed in some factory or shop or subjected in some way to occupational hazard.

Less than ten years ago, the "company doctor" was apt to be regarded by his patients as an agent of their employer, hired especially to guard his and not their interests. The employer, as a rule, paid as little as possible for medical services to his employes and necessarily only men of mediocre ability entered the field. Now, some of the best men in the profession are giving their entire time and intellect to the care of employes in large plants and salaries of $10,000 to $20,000 are not uncommon. Moreover, the large industries offer a veritable human laboratory where the constant supervision of the health (and efficacy) of thousands of men and women ensures the development of a real system of preventive medicine and surgery. Today, the conservation of the lives and limbs of working people and the reclamation of the injured is a definite program in the industrial world, and Industrial Medicine and Surgery has become a firmly established and important specialty.

Naturally, much has been learned during the past few years as to the best methods of procedure and Mock has taken infinite pains to cover the subject as thoroughly as possible. Health supervision, the plant hospital, methods of satisfactorily handling the employes of both large and small concerns, prevention (including the intelligent examination of individuals seeking employment), industrial medicine and surgery, with all its ramifications, compensation, insurance and reclamation, all receive the most careful attention. Moreover, Mock does not propound untried theories but sets forth in explicit terms the procedures worked out at an infinite cost in both money and effort at some of the largest plants in this country. To the man engaged or contemplating engagement in industrial medicine, the book is a necessity; to the practician desiring to keep *au fait* with current advances, it is a desideratum, and its perusal by the average physician will cause a distinct widening of the mental horizon and enable him to satisfactorily meet conditions he heretofore has been unable to cope with.

WALL: "SEX AND SEX WORSHIP"

Sex and Sex Worship (Phallic Worship). By O. A. Wall, M. D., Ph. G., Ph. M. Three hundred seventy-two illustrations. St. Louis: C. V. Mosby Company. 1919. Price $7.50.

This extremely readable volume is presented by its author as "a scientific treatise on sex, its nature and function, and its influence on art, science, architecture, and religion—with special reference to sex worship and symbolism."

Perhaps this description will serve as well as any other, though this reviewer, after a very careful perusal of the work, hesitates to accept without qualification the term "scientific." However, Karl Pearson regards science as "a classified index to the successive pages of sense impression which enables us to find what we want, but in nowise accounts for the peculiar contents of that strange book of life." If this be Science, then Wall's treatise may be regarded as truly scientific for, it records and, to some extent, "classifies succes-

sive pages of sense impression" and enables the average reader to "find what he wants" —without accounting satisfactorily for the peculiarity of these things. As a matter of fact, perhaps, only a neuter could treat this subject from a strictly scientific standpoint. Every normal male—each healthy female—has from the beginning felt the irrepressible sex urge and, quite naturally, this, the most potent force in the universe of living things, colors, as it always has colored, alike human reasoning, dreams and man-built religions. Lust and love, are, after all, first cousins if not twin sisters, and, while one is "white as lily, the other red as rose," they have a common ancestry and, not infrequently, there is enough of Lust in Love—and even of Love in Lust—to render the colors somewhat indistinct.

Hence, it is not difficult to conceive how primitive man (with no inherited or inculcated inhibitions), on considering his emotions when confronted with a desirable specimen of the opposite sex, came to the conclusion that "everything female was divine" and, a little later, when new lives were the result of natural mating, regarded the woman as the source of life itself—as indeed, for us, she is.

As, with time, man's mentality increased and past events were recited, Tradition became a factor and as "no tale ever lost by the telling" the circumstances surrounding the begetting of Uz or the final surrender of some fair pre-Adamite maid to Buz became so impressed upon adolescent brains that they "dreamed dreams and saw visions." From such dreams, out of such visions, came ultimately—not without great travail—religious beliefs, poems, music, pictures and, alas, Prudery! It is, of course, a far cry from the cave-man capturing his mate to the twentieth century male wooing and winning his inamorata; still, the urge today is identical with that of a million years ago and, when it fails, Art, Religion and Culture must fall, for, the race itself will become extinct.

Wall says: "The theories that are taught and the myths we are asked to believe are nonessential. We cannot comprehend how the world could exist without having been created but neither can we comprehend how it could have been created; we can not understand how or where there can be a power to create a universe or comprehend the nature of such power. However, theorizing on such subjects has formed our religions." So, man could not—can not yet—clearly understand his own origin, though, about certain things, he did not have to theorize. He knew from experience that union of the sexes resulted in a new life and, therefore, sex became, and has remained, a dominant influence in human imaginings. It may or may not serve a good purpose to spread upon the printed page, for general perusal, all the fancies, theories and weird material upon sex and sexual subjects which can be collected, and it is a question whether, in doing so, one may not stimulate eroticism in many rather than a laudable desire to comprehend a somewhat incomprehensible subject in a few. However this may be, Wall has in this volume handled a delicate subject in a clean and acceptable manner, and mature and sincere students can read the book with advantage.

FREUD: "PSYCHOANALYSIS"

A General Introduction to Psychoanalysis. By Professor Sigmund Freud, LL. D. Authorized Translation with a Preface by G. Stanley Hall, President of Clark University. 406 pp. Cloth. New York: Boni and Liveright. Price $4.50.

Some time ago, a friend said to the present reviewer: "I am completely disgusted with most of the old philosophy of mind. It is little more than speculation. But, I do not know where to turn for anything better. Is there any author available whose treatment of the subject is truly scientific?" Had the present volume been published at that time, it probably would have satisfied the desires of that inquirer. It handles the subject in a thoroughly scientific maner, and, yet, is expressed in language quite comprehensible by the intelligent lay reader. Of course, Freud is too-well known throughout the scientific world, to need any introduction to the readers of a scientific magazine. Still, no doubt, many of those readers have had the feeling that he is too deep for ordinary mortals. This volume should dispel such a fear. Not that we agree with all his conclusions. That should not be the object of reading. That object should be to stimulate and direct thought. The twenty-eight lectures contained in the volume are elementary and almost conversational. Professor Hall well says in the preface: "They (Freud's lectures) have given the world

a new conception of both infancy and adolescence and shed much new light upon characterology; they have given us a new and clearer view of sleep, dreams and reveries, and revealed hitherto unknown mental mechanisms common to normal and pathological states and processes; gone far to clear up the *terra incognita* of hysteria; revealed the operations of the primitive mind so overlaid and repressed that we had almost lost sight of them; . . . and, in addition to all this, effected thousands of cures, established a new prophylaxis, and suggested new tests for character, disposition, and ability, in all combining the practical and theoretic to a degree salutary as it is rare."

It is unfortunate that the proofreader has permitted so many errors in spelling and grammar to slip by.

BABCOCK: "YOUR HEART"

Your Heart and How to Take Care of It. By Robert H. Babcock, M. D., LL.D. Illustrated. 235 pp. New York: George H. Doran Company. 1918. Price $1.75.

While this little work is for the layreader and does not claim to be anything else, still, it is of interest to the scientific man. The present reviewer has had the honor of knowing the distinguished author for a third of a century and, in common with the profession in general, has always had unbounded admiration for a man who, hampered by total blindness, had had the quiet courage not only to choose for a career the profession of medicine, but to achieve an international reputation in one of its most difficult specialities.

Instead of merely glancing casually through the book, which is all that time permits in reviewing most books, the present writer has read it from cover to cover because of the conviction that no one could read anything written by Doctor Babcock without learning something of value. And, he has not been disappointed. If every layman in the land could be induced to read this little volume, the task of the physician would be greatly simplified; because one of the great obstacles met with in the practice of medicine is, the ignorance and misinformation, especially the latter, found among people who in other matters are fairly intelligent. A little learning is truly a dangerous thing, and the author of this work has tried to convey to his readers clear and sane views in the matters pertaining to heart disease, and incidentally much useful knowledge on health and disease in general. He puts much emphasis upon infection of the throat and mouth. If he is right, and we believe that he is, many, perhaps most, cases of heart disease owe their origin to diseased tonsils or to pyorrhea alveolaris. It is a question for the serious consideration of the profession whether these two sources of infection have received the attention which they deserve. There are still many doctors who consider the frequent removal of the tonsils, and the extraction of teeth affected with pyorrhea as a fad. They are not asked to believe everything they read; however, the perusal of this little book would set them thinking.

BISHOP: "HEART TROUBLES"

Heart Troubles, Their Prevention and Relief. By Louis Faugères Bishop, M. D. Cloth, 435 pp. With 30 halftone plates and other illustrations. New York and London: Funk and Wagnalls Company. 1920. Price $3.50 net.

While this is primarily a book for patients with heart disease, and for the nurses in charge of them, nevertheless most physicians would be interested and benefited by its perusal. The subject is treated scientifically, yet, in language that can be understood without difficulty by the average man of education. To most people the announcement that they have heart disease is equivalent to a death sentence, one that is liable to be put into execution at any moment without warning. Because of this error in the popular mind, many patients carry a burden of fear and nervous anxiety that forms of itself an obstacle to recovery, even if it does not pull them farther into the depths. With most victims of heart lesions, a long step has been taken in the direction of cure if they can be convinced that, with care, they may live to old age.

On the other hand, there is a class of patients who, through ignorance, go on doing things that must necessarily shorten their lives. These would also be greatly benefited by the knowledge to be gained from reading this book. There are few diseases in which it is so important to give attention to rest, diet, and general

hygiene, and especially to maintain a sane, wholesome, optimistic attitude of mind. The chapters on consciousness of the heart's action, and on the care of the heart in the young, the middle-aged and the old, are of especial interest and value. The therapeutics of the subject is of course more of interest to the physician. Still there is a certain aspect of it in which knowledge of the heart action enables the patient to cooperate more effectively with this medical adviser.

LEO-WOLF: "THE CHILD IN HEALTH AND ILLNESS"

The Child in Health and Illness. By Dr. Carl G. Leo-Wolf. With an introduction by Dr. Peter W. Van Peyma, University of Buffalo. 297 pp. Illustrated. New York: George H. Doran Company. 1917 Price $2.00.

This is a book for the guidance of mothers, actual and prospective, not for the purpose of supplanting the family physician, but for enabling the mother to cooperate with him more intelligently. So many of the books for the guidance of mothers are written to exploit some pet theory or fad of an author whose knowledge is mainly theoretical. Such books are very popular with a certain class of young mothers who are always looking for the latest fads and who assume an air of superiority over their sisters that are more conservative preferring to adhere to methods that have stood the test of time.

The present work is especially free from faddism, while being thoroughly modern and up-to-date. Common sense and good, old-fashioned principles have not been sacrificed to modernity. The author has coördinated the latest science and scientific method with the highest ideals of maternity. He has avoided that very common mistake of confusing principles with opinions. Doctor Frank Crane has very aptly said: "Have fixed principles, not fixed opinions." Physicians can recommend this book to their patients without feeling that it may undermine their position as adviser in the home.

CULLEN: "HENRY MILLS HURD"

Henry Mills Hurd, The First Superintendent of the Johns Hopkins Hospital. By Thomas Stephen Cullen. 147 pp. Illustrated. Baltimore: The Johns Hopkins Press. 1920. Price $1.50.

It is not always the lot of the man who has rendered signal service to his generation and to posterity to receive such a tribute as this little work while he is still on earth. It must be a pleasant thought for him, as the sunset draws near and the shadows lengthen, that his labors have received the tribute of appreciation from his fellow workers.

The casual reader who, on observing that this book is made up largely of extracts from hospital reports, concludes therefrom that it must be dry reading, is making a great mistake. The description of a life of usefulness is always full of interest.

Johns Hopkins Hospital owes its high standing in a large degree to Doctor Hurd. He was preeminently the right man in the right place at the right time. While the whole book is of interest, the chapter containing "Some Random Recollections" is especially so. Any one who opens the book at this chapter is not likely to lay it down until he has finished it. It throws an illuminating ray upon a notable career, as well as upon the conditions existing in this country sixty years ago, and their influence upon that career.

HATRIDGE: "REFRACTION"

The Refraction of the Eye. A Manual for Students. By Gustavus Hartridge, F. R. C. S., Illustrated. Sixteenth Edition. Philadelphia: P. Blakiston's Sons & Co. 1919. Price $2.25.

WEBB-JOHNSON: "TYPHOID AND PARATYPHOID FEVERS"

Surgical Aspects of Typhoid and Paratyphoid Fevers, Founded on the Hunterian Lecture For 1917—Amplified and Revised. By A. E. Webb-Johnson, D. S. O., With Foreword by Lieut.-General T. H. Goodwin. London: Oxford University Press. 1919. Price $4.00.

SALMANS: "CHRISTIAN HEALING"

Christian Healing of Medico-Evangelism. By Levi B. Salmans, B. D., M. D. Guanajuato, Mexico. 1919. Price $1.50.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Answers to Queries

In answer to Query 6521, September issue, "Quinine and Urea in Neuritis," I will give my experience with quinine and urea hydrochloride in neuritis.

Case of neuritis, third attack. Gentleman, thirty-three years old, was injured while unloading freight, striking on back of lower lumbar and sacral region, badly injuring the nerves. This was three years ago. He had had three attacks, lasting more or less all winter so that he could work but very little. He came under my care last April, suffering intensely with severe pain about one and a half inches from the spinal co'umn. I decided that it was a case of neuritis affecting the external branches of the posterior division of lumbar nerves. We gave him electrical treatment, including baths; nerve stretching by twisting body; osteopathy; spondylotherapy, massage, all to no avail. Finally, I decided to use urea and quinine intramuscularly. By this time, he cou'd not move out of bed. Each breath, in fact, was agony. He was helpless.

I gave three injections, five days apart. After the second injection, he was entirely relieved so that he walked about, though weak from the long suffering without sleep. I gave the third injection to make sure. Remember, this was last April, with no further attacks, and the man has worked hard ever since. I must not forget to say that I used the salicylates, bryonia, gelsemin, macrotin and all the drugs internally that seemed to be indicated; so, evidently, it was the quinine and urea that did the work.

W. F. Ertell.

Kalamazoo, Mich.

Queries

Qudery 6531.—"Light, Please!" A. H. Y., Idaho, was, on the 8th of September last, called in the morning to see a man, age 42, who had an aggravated case of diarrhea, the bowels moving about every thirty minutes and passing blood in considerable quantity. "He had a normal temperature," our correspondent states, "so, I did not feel greatly alarmed. I prescribed geranium and ipecac and gave him a big dose of castor oil. Heard nothing more from the case till the next morning about nine o'clock, when I was called again. I found that the diarrhea had not been checked, though otherwise he did not seem in a serious condition. I increased dose of geranium and ipecac and had an enema given. Within an hour, I was called back and found the man suffering terribly with pain in both legs, especially below the knees. He said that he was subject to rheumatism, so, I gave him salol, grs. 2½, hourly, with other things I had prescribed; and, to ease his pain, I gave him a small dose of hyoscine-morphine-eactoid. He seemed some easier but trembled all over and could not even hold his hands still.

"In an hour, I was called again to come in a hurry. When I got there, he was easier but his wife had thought him dead before my arrival. It appears that he had a convulsion and was unconscious for some fifteen minutes. Still, he has not had so much pain since and, now, the bowel con-

dition has entirely subsided; he is sitting up and walking around today, the 11th.

Now, tell me the cause of the intense pain in the legs; for, I hardly think it rheumatism. Also, what produced the convulsion?

"And God said, 'Let there be light,' and there was light."

Unfortunately, in this case, the Almighty does not seem to have selected this writer as the proper individual to shed light upon what is unquestionably a very dark subject; namely, the exact condition which obtained in your patient and the cause of the extreme pain below the knees, which led you to administer salol, in addition to geranium and ipecac.

Frankly, considering the picture, the convulsion the patient suffered might well have proved a terminal one and he is to be congratulated on his recovery.

It is unfortunate, of course, that the stools were not examined and, before attempting any diagnosis, we would like to have a much clearer idea of the abdominal conditions existing when you first saw the patient.

In acute dysentery, with some diphtheritic or gangrenous process in the intestine, the onset is usually quite sudden, there being marked abdominal colic, diarrhea, tenesmus, which may be constant and very painful; straining, and passages consisting chiefly of mucus and blood. In some cases, pure blood or dark and coagulated blood is passed in considerable quantity. In others, sloughs, consisting of gray or blackish masses of necrotic tissue of a foul odor are voided. In these cases, as a rule, the temperature is not high but the patient rapidly emaciates and the heart becomes rapid and feeble. Abdominal pains are almost always severe, chiefly before evacuation, and are sometimes continuous; a few writers state that these pains extend into the limbs. Coldness and numbness of the extremities is experienced more frequently, however, and, of course, delirium, stupor, drowsiness or cerebral disorders are encountered.

We do not believe that the large dose of geranium and ipecac or the administration of the enema caused the pains in the legs which occurred within an hour after their administration. We can only regard them as "referred pains" and the convulsion which, as we have already stated, might have proved terminal, was unquestionably due to the absorption of toxins.

We realize, of course, that this is all theoretical and extremely unsatisfactory but, given a case of this character, one would have to have a very clear understanding of *all* conditions before he could rationally explain the cause of individual symptoms. In very many directions, even with the most complete information and careful study, we still too often have to raise our hands and beg for "more light."

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QUERY 6532.—"Hemophilia," E. L. H., Maine, writes: "What do you offer to prevent hemorrhage in hemophiliacs?"

Unfortunately, very little. As you are aware, hemophilia differs from all the other socalled hemorrhagic conditions by the invariable presence of disturbed blood coagulability.

Regarding the underlying cause, there are any number of theories; hence, the list of remedial agents recommended from time to time has been large. Unfortunately, medicinal measures do not prove extremely effective; the calcium salts heretofore advised are rarely of little if any value, and Musser-Kelly ("Practical Treatment") state that the same is true of gelatin. Fresh or citrated blood, fresh animal blood, or serum-tissue extracts and peptone possess proven value. Peptone, of course, given rapidly intravenously, lessens the coagulability of the blood but, given subcutaneously, it increases coagulability. Some good results have been reported from the rectal administration of peptone solution. Horse, bovine or rabbit serum, when not more than two weeks old, is of value; however, it is difficult to obtain and there is danger of anaphylactic reaction. Diphtheria antitoxin, if fresh, answers the same purpose. Fresh or citrated human blood is always available and preferable to any other means. It may be given subcutaneously in 30 to 40-mil (Cc.) doses, two or three times daily until the desired results are obtained. Where the bleeding point is accessible (as, after the extraction of teeth, removal of tonsils), cotton or gauze soaked in serum or fresh blood may be used with excellent results. The use of ergot, stypticin and remedies of this class has little, if any value.

Claybrook, in an article on hemophilia, says: "It seems to me, from observation of

this case and one other, that our conception of this condition is wrong. I do not believe that the trouble is with the blood itself, for, the clots are as solid as any in any other patient; in this case, they filled the mouth and were quite hard to break up. It seems to me that, possibly, the correct theory is that, in the normal individual, when a vessel is wounded, the injured intima secretes or throws out a material that agglutinates and seals up the broken ends of the vessels, and thus prevents the constant welling up of blood as seen in the hemophiliac; while this vital function is lacking in the vessels of these patients."

In certain cases of bleeding in a supposed hemophiliac, adrenalin may prove useful as a local application, a 1:1000 solution being used. Again, thyroid gland and mammary substance may be given advantageously, and Harrower recommends some such combination in conjunction with calcium lactate. Ferratin is also advocated as a useful agent.

Of course, hemophilia is particularly to be feared when it occurs in children, and the hemorrhages are usually more dangerous in boys than in girls.

This subject is very thoroughly covered in Sajous' "Analytic Encyclopedia of Practical Medicine," and Musser-Kelly's work, already referred to, also has an instructive chapter on hemophilia.

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QUERY 6533.—"Epilepsy in Child of Three." L. T. G., Oklahoma, writes: "I am especially interested in the case of a bright little fellow, three years old, the second child of a young healthy couple (farmers) with splendid family history. The child was taken suddenly, about a year ago, with an epileptic convulsion, without the least bit of warning as he had seemed to be perfectly healthy up to that time. Weighed 12½ pounds at birth (mother badly torn), but there is no evidence that I can find of injury to the infant at birth; no instruments were used. He has been examined and treated by several physicians; has been circumcised; throat, nose, ears examined and no defects found. I feel sure that the trouble is caused by gastrointestinal irritation and am giving six or eight doses of calolactose (1-10 grain) every hour, followed with laxative next morning, twice a week. The mother told me that he had passed 'small, gristle-like substances' before I had seen him and had noticed this a time or two since. I have given him two or three courses of santonin and calomel but got no results.

"For his stomach and bowels, I am giving him mixt. cretæ, bismuth, intestinal antiseptics (restricted diet, of course) and direct that he be given a solution of bromide of sodium in 10-grain doses, every hour or two whenever he seems very nervous; also atropine sulphate, gr. 1-600, and glonoin (glyceryl trinitrate), gr. 1-500, three or four times a day, at these times. He gets so nervous at times that any noise like a dog bark, thunder, and such, makes him cry and run to his mother. At first, the convulsions would come on every three or four weeks; he would have two or three a day for two or three days, then be apparently all right for three or four weeks. Sometimes, he would have them in the night. However, the convulsions were getting to be more frequent and more severe, although he has gone longer without convulsions under the treatment outlined than he ever had. On August 1, he had four attacks and had had three or four the day or two before, the hardest he had ever had. He has been threatened several times since, but his mother has so far been able to ward them off. We've been having "summer flu" here and, of course, this little fellow had it, at the time when he had his last attack of convulsions. The flu (?) affected stomach and bowels like summer diarrhea but only lasted a few days. After his attack of epilepsy, the bowel affection improved and, excepting these nervous attacks at times, he seems to be all right and runs and plays. I have cautioned his mother to be very careful about his diet, especially when he has 'hungry spells'

"Now, doctor, in my awkward way I have tried to give you a picture of the case. His parents are poor or, at least, not very well to do; so, they live on a rented farm. Still, they are very intelligent and willing to do most anything to have the boy cured. A specimen of the boy's urine goes forward herewith."

Unfortunately, the amount voided in twenty-four hours was not stated and we were therefore unable to estimate the total solids.

However, the acidity is somewhat high and a few pus cells, calcium oxalate crys-

tals and bacilli coli are present. No casts, sugar or albumin could be found and there is no evidence of intestinal fermentation.

Evidently, this is one of those cases in which one must proceed very cautiously and studiously avoid overmedication. Naturally, it is not desirable to continue the administration of sodium bromide and, were we in your place, we should, first of all, definitely identify the "gristle-like" substances passed (these may be segments of a tapeworm), place the child upon a very carefully selected diet, give: iron phosphate, gr. 1-12, calcium phosphate, gr. 1-12, potassium phosphate, gr. 1-12, magnesium phosphate, gr. 1-12, nuclein solution, mins. 4, three times a day, between meals, and solanine, gr. 1-64, and scutellaroid, gr. 1-3, every four hours.

After the solanine has been given for a week or ten days, unless conditions are threatening, discontinue its use for three or four days and then repeat. Should the attacks not cease under this medication, add verbenoid, gr. 1-3, to the scutellaroid.

If there is any sign of constriction of the anal sphincter, dilate thoroughly, though carefully.

You may continue to give some such mild laxative as you are now using, once or twice weekly. It might be a very excellent plan to give this little fellow a teaspoonful of mineral oil every night before he goes to bed.

In this connection a theory advanced in an editorial appearing in the *Journal Lancet*, of October 1, may well prove worthy of consideration. The writer calls attention to the possibility of undescended teeth causing various nervous disorders and even epilepsy. He briefly records the case of a boy who, at 2½ years of age, developed epilepsy, the convulsions becoming more and more frequent until twelve or more a day were not uncommon.

The boy went through the hands of various medical men, was circumcized, had his tonsils enucleated, and so on; but, at seven years of age, he presented all the symptoms of a mental defective and was sent to his home as incurable. Then, the boy shed his primary teeth, the permanent teeth developed in perfect order and, from that time, the condition of the child became normal.

A second and very similar case is quoted and the writer stresses the extreme desirability in all such cases of paying careful attention to the condition of the teeth, especially with a view to ascertaining whether one or more molars may not be in abnormal positions and, through pressure, create disturbance. The removal of such undescended teeth, if desirable, calls of course for the services of a thoroughly-skilled surgeon-dentist.

The writer realizes fully, Doctor, that he is extending very little real information or assistance, but, frankly, his experience with these cases has led him to realize that only by most careful and prolonged study of the individual and the adoption of procedures distinctly indicated in each particular case, can we hope to secure results.

In children of this age, the more simple the treatment, the better the results, as a rule.

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QUERY 6534—"Tender Feet." R. D. B., Oregon, asks for a formula to harden the soles of the feet. He has a relative whose feet are extremely tender.

It is a little difficult for us to prescribe intelligently for the young woman who suffers from "tender feet." We do not know her age or whether or not the condition is accompanied by hyperhidrosis.

The causes in such local troubles may be varied from that of pure idiosyncrasy to grave systemic disturbance, i. e., Hutchinson reports the case of a woman in whom the slightest indulgence in tea drinking provoked hyperhidrosis of the feet. Tenderness of the feet, accompanied by sweating, exists in those of impaired vigor and not infrequently appears after some debilitating disease such as influenza.

On general principles, therefore, we would suggest that you ascertain carefully the condition of your patient's body chemistry. Administer some such tonic as the arsenates of iron, quinine and strychnine, with nuclein, after meals; or iron citrate compound with nuclein, hypodermically, every fourth day; and institute local treatment of an astringent character. Lotions of zinc sulphate, tannic acid and alum, from ½ dram to 1 ounce to the pint of water, are often useful, especially the last two. They should be applied at least twice daily and, following the application of the lotion (the feet, of course, having been first thoroughly washed) a dusting powder of

boric acid with from 5 to 30 grains of salicylic acid to each ounce, may be dusted over the surface. Should these measures fail, a 1:100 solution of formaldehyde may be employed.

Some writers recommend footbaths of a strong solution of extract of pinus canadensis every night, and the subsequent use of powdered boric acid or salicylic acid, mixed with lycopodium, oxide of zinc, or other inert powder, constantly applied inside the stocking.

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QUERY 6535—"Eczema of Genital Region." N. F. K., Georgia, presents the case of a man, 39 years old, height about 5 ft. 4 in., and weighing 210 pounds, who suffers from weeping eczema between his legs. He served in the army, was in Mexico and France. Has led an outdoor life; and now is a guard of the chain gang, for the State.

"Is temperate, uses no tobacco or whisky; not a glutton for any kind of food. I have pulled out the hair between the legs several times; at first I thought it did good; but, it did not. There seems to be a white sac that the hair roots are in; in other words, the hair follicles seem to become enlarged, become gristly and make sores; when the flesh is pinched up, the white sac can be caught and pulled out, then the place gets entirely well and does so at once. The sweat is very bad, the itching is intense. It has been growing worse for two years, while the condition began several years previously. The man is in robust health otherwise. He denies ever having had syphilis, while he says that about ten years ago, he acquired gonorrhea. He is single but 'loves the ladies.' I have given him constitutional treatment and local treatment galore, but to no avail."

We regret that it is a difficult matter to prescribe intelligently in the case of weeping eczema you describe.

In the first place, eczema in the genital region is apt to prove extremely rebellious to treatment and you seem to have, in this particular case, a superinduced or concomitant infection of the hair follicles. It occurs to this writer that it would be an excellent idea to remove and forward for examination some of the hairs from the affected area.

You say "the sweat is very bad." We do not quite know whether by "bad" you mean profuse or malodorous? Neither do you give us any idea whether any area has healed entirely, nor indicate the exact extent of the lesions. You also say that you have given constitutional treatment and that the patient's general health seems to be excellent. You do not, however, give us any idea of conditions revealed by urinary examination and, as in practically every case internal and local treatment must be instituted conjointly, it would be a good idea to send a specimen of urine (four ounces taken from the mixed twenty-four-hour output, stating total quantity voided) to our pathologist for examination.

Two of the most important rules in the treatment of eczema are: (1) To analyze the probable cause of the eruption, systematically and with strict attention to detail; that is, to look for and eliminate irritants; next, preexisting or concomitant dermatoses, with their marked bearing on the prognosis and treatment; and, finally, internal causes should be controlled by means of appropriate measures.

(2) The treatment must be symptomatic and flexible, rather than systematic and predetermined; in other words, the eruption must be treated according to its behavior instead of blindly applying formulæ of "antieczematous" repute.

You may get excellent results in a case of this kind from the use of copper and zinc sulphate, in camphorated water; thus: cupric sulphate, 2.0 Gm.; zinc sulphate, 7.0 Gm.; camphor water, saturated, 300.0 Gm.; filter. For use, dilute with six to eight parts of water. In not a few instances, an aqueous solution of resorcinol (1:200) makes an excellent wash. These applications may be followed by that of chlorazene cream, ichthyol ointment, with resorcin or yellow oxide of mercury paste. In many instances, painting the parts with an aqueous solution of silver nitrate (1:20) every two or three days, proves effective.

Arsenous sulphide may be given internally in alternation with echinacoid. The latter drug should be given in full doses, 1 to even 3 granules, three times daily between meals, the arsenic (gr. 1-64), of course, being taken after eating.

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QUERY 6536—"Syphilis of Nose and Throat." E. M. T., Arkansas, is treating a young woman who has syphilitic ulcers in

nose and throat. She first noticed ulcers in her throat about seven, and in her nose about two months ago. Our correspondent has been treating her about three months. He prescribed: mercurous iodide, gr. 1-6, stillingoid, gr. 2-3, strychnine arsenate, gr. 1-32, iron arsenate, gr. 1-16, quinine arsenate, gr. 1-16, nuclein solution, mins. 10, three times daily, with iodized calcium, gr. 1, four times daily, gradually increased to 20 grains daily. Saline laxative mornings. "However," he says, "she is not improving as she should. It seems to me we should notice a difference in her throat by this time. Will this treatment cure her, if kept up, or should she have other treatment?"

We strongly recommend that you administer salvarsan (arsphenamine) or neosalvarsan to this young lady. She may also with advantage receive full doses of iodized calcium and inunctions of mercury.

The disadvantages of administering mercury by the mouth are, that the drug is likely to interfere with digestion and cause alimentary disturbances; whereas, inunctions are painless, leave the digestion undisturbed, salivation is very unusual, the drug is introduced steadily and the dose easily regulated.

In these days, intramuscular injections of the soluble salt of mercury are preferable to the inunctions and, as we have so frequently pointed out, it is absolutely essential that arsphenamine injections be followed by a course of mercury in some lowed by a course of mercury.

In these cases, local measures are, of course, of secondary consequence but, at times, treatment should be prompt and energetic. Unhealthy ulcerating surfaces should be cleansed with chlorazene solution or wiped with peroxide of hydrogen; then dried and dusted with europhen or other antiseptic powder. Of late, many syphilographers are recommending swabbing the lesions with dichloramine-T and chlorcosane.

Pain and dysphagia may be relieved by insufflations of anesthesin and the patient may be given a supply of troches containing anesthesin and iodized calcium.

Occasionally, exuberant granulations may require treatment with a curet or painting with nitrate of silver, 10 to 20 grains to the dram, sulphate of copper, 20 grains to the dram, or argyrol, 25 percent.

Governor Cox Favors Compulsory Health Insurance

IN view of the vital importance of the existing compulsory-health-insurance agitation, we recently wired to both candidates for the presidency regarding their position in this matter. Unfortunately, Senator Harding, being away from home, did not act on our inquiry. Governor Cox, however, replied by night letter as follows:

"I strongly favor a plan of health insurance and am working to that end in our state. Have caused an investigation to be made so that the legislature may act with complete information. It has also been my policy to give full recognition to the ethics and needs of the medical profession in so far as contact with the state government is concerned."

See the first editorial in this issue on the subject, and also Doctor O'Reilly's article on page 725.

Sleep Restores the Balance of Efficiency

Loss of sleep is a form of starvation more certainly destructive, even than that resulting from the lack of food.

Sleep, on the other hand, reverses the downward trend caused by our waking activities and elevates us, physically and mentally, to a point of efficiency commensurate with the quality and quantity of sleep we have experienced.

A scientifically built mattress is not the least important factor in inviting sleep of complete relaxation and thus completely restoring the balance of efficiency.

In the Sealy Mattress every requirement of hygienic design, sanitary construction and physiologically correct service has been met. Only antiseptically cleaned long fibre cotton is used and the special air-weave process makes it a complete unit **without tufting.** This mattress invites deep, restful sleep because of its resiliency, and because of the unbroken, smooth surface which molds itself to support every part of the body.

SEALY MATTRESS COMPANY
SUGAR LAND, TEX.

News Notes Department

At this moment it is possible that someone will be scanning these pages who is just equipping an office, or seriously thinking of installing some apparatus or other for treatment of suitable cases by electricity.

So many outfits are being offered, so many recommended, that a choice is by no means easy to make. But the selection may be narrowed somewhat according to the scale on which the practitioner expects to work, as well as the money he contemplates investing. If the want is a practical outfit for use in general practice, such as is to be had for a moderate outlay, yet one capable of doing all sorts of work, perhaps the electrical cabinet offered by the Thompson-Plaster Co., of Leesburg, Va., will serve as well as any made.

This outfit is supplied in two styles or models, of which the one known as Model E is probably the most serviceable for average needs. A surprising variety of needs are served by it, we note. It generates the high frequency current, the sinusoidal current, does skiagraphic work, supplies compressed air for nebulizing and insufflation, provides means of giving vibratory treatments, and a great deal more besides, according to our informant.

The advent of arsenic, as salvarsan and related products, into the therapy of syphilis has served to draw attention away from the old orthodox remedies, mercury and iodine, this largely by reason of the somewhat spectacular disappearance of surface manifestations in many cases under arsenic medication.

With many, the question arises whether such departure from the old is justified. Although less speedy of action perhaps, than the arsenic preparations, are not mercury and iodine after all really necessary in the treatment of this disease, in many cases at least? And will the pendulum of professional opinion swing back, after a time, to the well-known mercurial treatment, in conjunction with or followed by iodine?

Not a few hold fast to the idea of giving the two together. Those who do, will be interested in Pil Mixed Treatment (Chicester) which is being offered by the Hillside Chemical Co., Newburgh, N. Y. This combination is said to be

The Management of an Infant's Diet

Malnutrition, Marasmus or Atrophy

Mellin's Food
4 level tablespoonfuls
Skimmed Milk
8 fluidounces . .
Water
8 fluidounces . .

Analysis:

Fat	.49
Protein . . .	2.28
Carbohydrates. .	6.59
Salts	.58
Water . . .	90.06
	100.00

The principal carbohydrate in Mellin's Food is maltose, which seems to be particularly well adapted in the feeding of poorly nourished infants. Marked benefit may be expected by beginning with the above formula and gradually increasing the Mellin's Food until a gain in weight is observed. Relatively large amounts of Mellin's Food may be given, as maltose is immediately available nutrition. The limit of assimilation for maltose is much higher than other sugars, and the reason for increasing this energy-giving carbohydrate is the minimum amount of fat in the diet made necessary from the well-known inability of marasmic infants to digest enough fat to satisfy their nutritive needs.

MELLIN'S FOOD COMPANY, BOSTON, MASS.

Pepsodent Acts

in these multiple ways

Active pepsin is but one of the Pepsodent ingredients.

This is an acid dentifrice. It contains no soap, no chalk, no alkali of any sort.

The acid multiplies the flow of saliva, and reduces its viscosity.

It multiplies its ptyalin content — the starch digestant. This combats the starchy particles which cling.

It multiplies the alkaline index of the saliva to neutralize mouth acids as they form.

The polishing agent is tricalcic phosphate in finely-powdered form. It is sifted through a 200-mesh.

Tricalcic phosphate, the chief tooth constituent, has proved itself the ideal polishing agent. It is efficient in removing plaque. It keeps the teeth so highly polished that plaque is less apt to cling.

Five years of tests have proved it harmless to the teeth. We have brushed natural teeth with it in our laboratory 250,000 times. To both gold and enamel we have applied what amounts to years of ordinary brushing.

Any polishing agent in a soapless dentifrice will seem somewhat conspicuous. But don't let this fact lead you to think that Pepsodent is over-efficient.

Watch the results

There are now millions of Pepsodent users. You meet some of them daily, perhaps. Note the unique results.

If you have not tried it, send the coupon for a tube. If you do not know all the facts about it, ask for our technical literature.

Pepsodent PAT OFF. REG U.S.

The Modern Dentifrice

An efficient plaque combatant which complies in all ways with the best dental opinion.

THE PEPSODENT COMPANY, 434
6219 Ludington Bldg., Chicago, Ill.

Please send me, free of charge, one regular 50c size tube of Pepsodent, also literature and formula.

Name .....

Address .....

Enclose card or letterhead

exceptionally well borne by the stomach and the organism as a whole, while results as a rule are reported satisfactory.

Samples are being offered.

Those desirous of adding to their knowledge of electricity as applied to the treatment of disease may do well to get in touch with the Ultima Physical Appliance Co., 176 West Lake St., Chicago.

This company has something interesting to say of the application of that certain electric current known as the sinusoidal. In many conditions the slow sinusoidal current is said to be very beneficial, indeed.

For applying it a small portable apparatus is offered, which may be operated on either direct or alternating current, as provided in our towns and cities. A special rheostat gives the means of controlling the voltage to a nicety. A frequency of 10 cycles per minute is afforded; just the right frequency, it is claimed, for stimulating the peristaltic action of the bowels (for example) in cases of intestinal atonicity.

All in all, for a small and inexpensive apparatus, it is said to be most practicable. One doctor who purchased said this: "The No. 3 Sinustat is a wonder and does all that is claimed for it and more besides. I am very proud of it and using it with distinct advantage."

Oil of sandalwood has long been esteemed as a good internal remedy for the ravages of the gonoccocus in the urinary tract, from the kidney tubules to the urethral meatus. In the treatment of such consequential disorders it is without doubt a valuable adjunct to the dietary and local treatment by injection or irrigation. Some insist they can cure gonorrhea without injections, relying only on certain internal remedies, as that mentioned, and exclusion from the diet of meats, condiments and so forth, as well as alcoholic beverages.

In this connection it is recalled that a French chemist, Astier by name, has provided for internal use a refined sandalwood oil, which is exceptionally well borne even in large doses long continued. On the whole, also, its action is said to be more decided, as judged by results. The preparation is being marketed in this country by the E. Fougera Company, of New York, under the name of Arheol.

The ordinary oil, as is well known, frequently upsets the stomach and is otherwise militated against by collateral faults. Arheol is absolved from these faults, according to its sponsors.

A long time will elapse ere the bromides are forgotten. At the present time, even though some very effective substitutes have issued from the laboratories, the former hold firmly to their place in the professional regard. Many still use them, unmindful of innovations.

That results are to be had with the bromides few will dispute. But the distressing collateral effects militate against them. They try the stomach grievously, upsetting it in a large percentage of the cases in which they are applied, so that

Influenza Is a Germ Disease

Catarrhal Conditions Favor

its development as the germ laden mucous from the nasal passages runs into the throat and stomach and poisons the whole system. It also irritates the sensitive surface of the throat and produces severe fits of coughing—one teaspoonful of Mistura Creosote Comp. (Killgore) mixed with a tablespoonful of water and swallowed slowly will give prompt relief. In chronic cases of Phthisis or Bronchitis give a teaspoonful in milk or water after meals. Beechwood Creosote is recognized as a safe and dependable destroyer of microbe life when properly administered.

Sample sent to physicians on request.

Charles Killgore

Manufacturing Chemist **Established 1874**

82 Fulton Street, New York

An Easily Digestible Food

is always desirable in periods of convalescence, and nourishing value must be the first consideration.

Too few physicians understand the super-excellent qualities of

Grape-Nuts

in these two needed requisites.

Wheat and malted barley are so processed in this standard cereal food that a large part of the starchy content is transformed into dextrose and levulose for easy digestion. And besides, the inner bran coat of the grains, in which is preserved the inherent mineral elements, is retained. This does not provide too much roughage—but just enough.

Queries as to Grape-Nuts will be gladly answered by us for we want this good and time-tried food to be better understood and more generally used by the profession.

Made by

Postum Cereal Co., Inc., Battle Creek, Mich.

they must sooner or later be abandoned or intermitted till the gastric function is again somewhat normal.

With devious vehicles and otherwise attempts have been made to nullify the objectionable features of these drugs. One preparation so designed is Bromidia (Battle). We are told that this adaptation may be administered for a long time without upsetting the stomach. If so it deserves a trial. The chemists on their part have confidence in it; the fact that it has been in the market for years is strongly in its favor.

The fact that more and more people, as time passes, suffer from poor and defective vision, due largely to excessive reading, makes refraction a generally lucrative specialty. It is quite noticeable that refractionists are doing well even in towns that would seem too small to support any specialist. There seems to be plenty to do for everyone who goes into this work.

In view of this the home course in refraction, for the general practitioner, as given by Dr. David Crawford, of Guthrie Center, Iowa, has its appeal, even for those who purpose only to fit glasses on the side, as we say. This course, we learn, provides a good working knowledge of refraction at small cost, and in the shortest time possible. It does not take the student away from his practice. Study is done at home in spare hours. There is no wading through long and prolix treatises. On the other hand, the very essentials of refraction are selected and presented to the student. The course is eminently practical; the lessons easy to learn and to apply in actual conditions of life. Those interested should write for a prospectus stating particulars.

According to reports, the medicinal ester chemically known as Benzyl Benzoate continues to give results and to justify the recommendations made at the outset by Macht and others. Especially is it effective in the treatment of painful menstruation, provided this be caused by spasm of the uterine musculature. Clinicians are quite in agreement as to that. Litzenberg, for one, says that he found it satisfactory in 81 percent of the cases treated.

Macht himself, suggesting further uses for the drug, has recently attested its efficacy in whooping-cough. It does appear to reduce very decidedly the number of paroxysms as well as their severity. Those who have not yet tried it in this disorder should not fail to do so. Hiccough common in infants is another indication for its use.

The Abbott Laboratories supply Benzyl Benzoate in two forms, tablet and elixir, both of which are truly representative of the drug.

Once in a while some thinking plodding medical mind conceives a remedy combination that is really and exceptionally successful. The originator finds it so in his practice; others find it so in theirs; and soon the idea is taken up by a legion of practitioners and does not soon die but on the contrary persists for years by reason of its transcendent value. Some-

FEL BOVINA

A combination of oxgall with laxatives prepared in a manner in which the oxgall retains its full value. It is known that the extract loses considerable strength when dried and, therefore, the liquid preparation is to be preferred.

FEL BOVINA increases the secretions of the liver, pancreas and intestinal glands and is especially indicated in hepatic and intestinal disorders. We highly recommend this preparation in acute congestion of the liver with imperfect discharge of bile or catarrh of the common bile duct.

We will gladly send sample of FEL BOVINA upon request so that the physician may fully appreciate its therapeutic value.

STEARNS & WHITE CO.

Established since 1887

CHICAGO, - - ILL.

Every Day Dionol Results

Small wonder that doctors everywhere use DIONOL more and more. The results are decidedly unusual. Send for literature giving scientific rationale. Many other results equally gratifying are given.

Third Degree Burn

Send for reprint of this remarkable case which Dr. L.... voluntarily sent to a prominent Medical Journal, after healing these unusually deep burns with DIONOL. Many other well known remedies were used in vain for months.

Varicose Ulcer

Dr. M. writes: "Where can I procure Dionol in Philadelphia? Have just cured a case of Varicose Ulcer with same."

Chronic Leg Ulcer

Dr. C. writes: "I have completely cured a chronic ulcer of the leg in 6 weeks with Dionol. Several other doctors failed in this case. Never saw a nicer result."

Carbuncle

Dr. W. writes: "That case of Carbuncle I ordered Dionol for cured it in great shape, and I received the fees and many bouquets. Thanks to DIONOL."

Infected Wound

Dr. C. writes: "A shrapnel wound in the foot of a Canadian soldier had failed to heal under any other treatment. Naturally I had little hopes of helping him. So gave him some Dionol temporarily, with instructions. Sometime after he came in and showed me that Dionol had healed the wound completely. No use saying I was surprised."

THE DIONOL COMPANY

Dept. 20 **Detroit, Mich.**

times we may not be able to account for its action; but certainly ample excuse of impiricism, although many scoff at it, lies in the results obtained. After all results are what both doctor and patient want; how these results are produced within the organism is a matter of secondary importance.

For instance, the Columbus Pharmacal Co. for some six years or more have been offering what they call Goitre Special Tablets, the merits of which are attested by many users; that the demand for them grows constantly as time passes speaks in their favor, and seemingly entitles them to a trial in goitre cases. For formula and other data the reader is requested to write the company, address 330 Oak St., Columbus, Ohio.

The question of how and what to feed the diabetic is a most important one. In the endeavor to restrict the intake of harmful food elements, the diabetic menu is too often narrowed down to a degree that works unbearable mental hardship on the patient and often seriously weakens his body.

In particular, he keenly feels the deprivation of bread made from ordinary flour. In the diabetic, perhaps the strongest and most insistent of all cravings is that for a slice of the once common-place, every-day bread, now prohibited.

It is here that Lister's Diabetic Flour proves its great value. Not a gluten flour, but evolved from a blend of readily assimilated caseins—absolutely starch-free, sugar-free and purin-free—and easily made into nourishing, satisfying bread, as well as appetizing muffins, noodles, dumplings, French toast, cookies, etc. Lister's Diabetic Flour is superior for many reasons. It is self-rising, and put up in moisture-proof, carefully-measured, small packages, which is of great assistance to both physician and patient. Each package is accompanied by easily-followed recipes for making a number of appetite-tempting, strictly non-carbohydrate dishes.

Another concrete instance of the present concerted effort on the part of chemists and other purveyors to the doctor, in the direction of making his work easier, while at the same time no less effective, is the non-sticking surgical dressing brought out a year or so ago by a Chicago firm; as the work of removing such a dressing is a matter only of a minute or two it means a saving of the doctor's time, which in the aggregate, is considerable. We know it is not uncommon for a surgeon or his assistant to devote a quarter of an hour of painstaking effort to remove a strip of ordinary adherent gauze.

And consider the technical difficulties in the way of administering a dose of salvarsan as usually provided, the precision with which the salt must first be brought into solution before injecting. Happily, however, a ready-to-use

Ready for Use!

A CAREFULLY prepared and alkalinized solution of Arsphenamine "606," furnished in a form available for instant use, in the office or at the bedside.

SOLUTION
ARSPHENAMINE-LOWY
S.A.L.

The physician breaks off the ends of the ampoule, attaches the rubber tubing, inserts the needle, and injects. No mixing, no waiting, no bother.

Accepted by the A. M. A. Council of Pharmacy and Chemistry, and prepared under license by the U. S. Public Health Service.

Interesting literature sent on request

LOWY LABORATORY, Inc., 361 Plane St., Newark, N. J.

A Product of Scientific Accuracy

You may think that pressing grape juice is a simple matter. But the processing of Welch Quality Grape Juice to retain its richness and natural taste of the fresh grapes is an extremely careful process and is under strict laboratory control.

For more than 50 years, Welch's has maintained a standard of highest quality that is recognized by physicians and dietitians throughout the country.

The Welch Grape Juice Company, Westfield, N.Y.

solution is now available to the physician, which spares him all the bother of mixing and annoyance of waiting. All he has to do is to break off the tapering end of the glass ampule in which it comes and attach his rubber tube and needle. We refer to Solution Arsphenamine (Lowy) announced in this issue.

The fact is well known that salvarsan is badly tolerated by some syphilitics, while a certain proportion are subject to injections of this arsenic salt only at a risk that is too great to take; hundreds of deaths have followed its indiscriminate use. In other instances, even in the absence of clear contraindications, the patient after an injection experiences more or less distress, in the way of nausea, temperature and hemicrania.

This has led to a search for an arsenic salt of similar action, but devoid of its drawbacks, such for example as Mon-Arsone, which is made by the Harmer Laboratories Co., of Lansdowne, Pa. The preparation is said to give results fully as good as salvarsan, while at the same time absolved from the objections named, being well tolerated and safer.

It comes in hermetically sealed glass ampules already dissolved for injection, with a 10-cc Leur syringe. See our advertising pages for schedule of doses and prices.

For years chemists have been working to devise a really satisfactory germicidal soap. The cake soaps available for some time, most of which carry mercury salts, leave much to be desired. True, they possess bactericidal virtues in variable degree, but they were hard on the hands, irritant to more delicate tissues and decidedly unsafe to entrust to patients generally, the precautionary word poison upon the soap itself or its container being a clear admission of this fault.

The news from the Abbott Laboratories that the long-wanted article is at hand and marketable is therefore interesting. It is listed as Chlorazene Soap Powder, and packaged in two-ounce, sprinkler-top cans. The germicide carried is many times more powerful than phenol or any mercury salt; it lathers well; and goes farther than either a cake or liquid, since only so much as is required at the moment need be sifted out of the can. Nor does it roughen the hands; on the contrary repeated use makes them soft and pliable. The soap serves a great variety of purposes, in the every-day work of the doctor, dentist and nurse, as indicated in the leaflet concerning it; this may be had on request addressed to the laboratories, 4753 Ravenswood Avenue, Chicago.

One way of progress in every department of life is to simplify processes to eliminate that which is useless, cumbersome, unessential. For instead of helping to results unessentials are really obstacles. Much good work has been done for instance, toward simplifying diagnostic

A Favorite Laxative For Thirty Years KASAGRA The Original Cascara Aromatic

KASAGRA contains all the active principles of the best selected bark of Rhamnus Purshiana, and owes its laxative properties to this drug alone.

KASAGRA does not gripe.

KASAGRA is palatable, the bitter principle being successfully masked without detriment to the therapeutic properties of the drug. It is strictly a non-bitter preparation of Cascara Sagrada of full fluid extract strength.

KASAGRA is a true laxative and intestinal tonic. It is not a purgative and should not be used as such.

The aromatics used in the preparation of Kasagra produce a carminative and stimulating effect upon the alimentary canal and are thus synergistic.

The term "Kasagra" was coined and adopted to protect the medical profession, druggists and ourselves against the substitution of cheaper and inferior preparations bearing the name "Cascara Aromatic," a title original with us.

Free Samples of Kasagra to Physicians.

Physician's Department

Frederick Stearns & Company

Manufacturing Pharmacists

Detroit, Michigan

In business over sixty years

A Big Story In a Small Nutshell

THE beginning point of many under-oxydation disorders lies in the improper cooking of food, and in the use of lard, animal fats, and ordinary cooking compounds, used in the preparation of food. These fats, because of their low burning point, "decompose" by the action of heat into products other than fatty acids and glycerine.

The acrolein produced by burning is not only intensely irritating to the intestinal mucosa, but also prevents the normal secretion of digestive juices—thereby hampering digestive and metabolic processes, and preventing the proper isomeric transformation of the proteid molecule.

There is one way in which much of this can be prevented. This is by advising your patients to use Mazola in all their cooking and baking. Mazola has a higher burning point than other cooking fats or oils. It can be heated to 650° Fahrenheit, or more, before burning! Whereas, butter, lard, goose grease and cooking compounds burn at much lower temperatures.

Food properly cooked in Mazola is seared over by the heat—not soaked full of indigestible fats. Natural odors and flavors are retained. Food is rendered more digestible. The nutrition of your patient is enhanced.

Mazola is equally valuable as a salad oil, and as an easily assimilated fat—rich in lecithin and in phosphorous compounds—helpful in all wasting diseases, and to assist in conserving the integrity of the protein structure of the body.

Order your patients to use Mazola, Doctor, and note the immediate improvement that follows.

CORN PRODUCTS REFINING CO.
17 Battery Place New York City

MAZOLA IS SOLD BY ALL GROCERS EVERYWHERE

tests which once were of use only in a very limited way because the necessary appliances were costly beyond reason or the methods themselves too complex. The busy doctor has no time for complexities. His time is precious. All efforts, therefore, made with the view of conserving his time are to be encouraged.

For instance, were as good results to be had in syphilis by inhaling or simply exposing the affected person to vaporized mercury, instead of injecting the drug intravenously (which requires some little expertness and besides inflicts more or less pain upon the patient) or instead of applying that drug by inunction (a tedious and mussy process) such a method would certainly find welcome. The Spirocide Corporation, 153 West Twenty-third Street, New York City, say results are obtainable by this easier method, and in consequence are receiving a great many inquiries.

We are advised that the Sanborn Company, makers of scientific instruments in Boston, are moving into new and larger quarters, which will afford them floor space four times larger than they have formerly had. Their new address will be: 1048 Commonwealth Avenue, whence inquiries should hereafter be sent.

The company is well and favorably known among physicians for its bloodpressure outfit, which is said to be the most durable, and least likely to get out of order, of all appliances in this class. One doctor recently reported that he had tried five of the appliances in the market, all of them higher in price than the Sanborn, but that not a single one of them gave him the service which the latter has; he expressed himself as being highly pleased with it.

When it does happen that their outfit goes wrong, due to mechanical defect or other incident, they are ready at all times to make the necessary adjustment or repairs, no matter how long after its purchase. Those needing such an appliance should investigate it before buying.

So unresponsive to treatment in many cases is pyorrhea that it ought to be looked for and recognized early, with the view to checking it in its incipiency. The consequences of its depredation are dreadful enough to influence the prudent to take it early in hand under the supervision of his dentist. The disease can be prevented it is said by consistently good care of the mouth and teeth, and so maintaining a condition of absolute oral cleanliness, this by the use of an efficient dentrifrice. If so, results will probably depend upon one's choice of a dentifrice, certainly many in the market are not to be relied upon. How many doctors, when they are asked to recommend a dentrifrice, as they often are, can do so with surety that the questioner will get what he or she ought to have?

Pyorrhocide is being offered by the Dentinol & Pyorrhocide Co., Inc., of New York. They advertise it in this issue, saying that it is especially effective against the disease referred to, manifested as it is by gums that are soft and

PROTECTIVE ANTISEPSIS
for
MUCOUS MEMBRANES

RHINOL is a 10 per cent suspension in powder form of a new and remarkably potent but non-irritating bactericide. As a means of disinfecting and allaying inflammation of the upper air passages it is of unique value.

In all Acute and Chronic Conditions of the Nose and Throat, such as Coryza, Rhinitis, Influenza, Ozena, Infection of the Sinuses, and so on, RHINOL will afford immediate relief. Irritation, congestion, discharge and the attendant discomfort are promptly removed.

In Hay Fever, RHINOL is a specific, and complete relief is obtained within a week.

Briefly, RHINOL enables the general practitioner to treat his nose and throat cases as successfully as the specialist.

A physician needs only to observe the action of RHINOL in some bothersome case to recognize its superiority to all other local remedies for nose and throat affections.

Valuable literature on request *Price* $3.00 *complete with insufflator*

RHINOL CO., Inc.

1416 BROADWAY **NEW YORK**

The Case For Coffee

Number Nine

Hippocrates recognized the influence of temperament in the production of symptoms. It is often said that "as a nation we live and work and play upon our nerves." To "nervousness" is ascribed much of the functional disturbance that provides physicians with many patients. Why deny the fact? But on the other hand, why attempt to saddle upon certain articles of food or drink the onus of inducing "nervousness?"

Take coffee for example, accused of producing nervousness by over-stimulation of cardiac or cerebral functions. Nervousness is a mental phenomenon mostly. Excessive fatigue, overuse of muscles or mind, overwork of digestive organs, increased mental strain, worry, insistence upon brain effort in spite of Nature's effort to rest and to recuperate, impaired nutrition favored by impure or anemic blood, laden with toxins absorbed as a result of intestinal stasis, deficient oxidation or exercise, excessive use of vital forces, all these are upon analysis the causes of "nervousness." Yet how often patient and physician make or attempt to make coffee a scapegoat for symptoms complained of!

Analysis of symptoms, of secretions, and excretions, of habits, will, almost without exception, point away from coffee and toward some more rational and direct exciting cause. Withdrawal of coffee does not often remedy the condition. Removal of the real causes usually permits the resumption of the use of coffee. Forbid coffee if you can convince your reason that it is in part responsible. But do not make it a scape-goat to excuse or avoid getting at the real cause.

See next issue.

Copyright 1920 by the Joint Coffee Trade Publicity Committee of the United States

receding from the tooth proper, that bleed easily, and have a lax, spongy look. Samples may be had by writing; also a leaflet dealing with the cause and other aspects of this trouble.

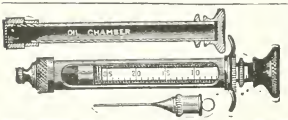
We have never lacked strong antiseptics, in the memory of the oldest of us; phenol and bichloride for instance have been available for decades, and certainly they may be termed powerful, although it is true that two chlorine compounds have recently been developed that exceed the bactericidal power of these older agents about fifty times.

But an antiseptic both efficient and safe to have about the house and to recommend to patients for use between visits was scarcely known to the doctor till hydrogen peroxide came to the fore; the merits of this agent were made known largely through the efforts of the Oakland Chemical Co. They offered it under the name of Dioxogen. Theirs was probably the first reliable solution, one that was free from impurities frequently found in other commercial solutions. From the first it had strength and keeping properties not possessed by prior brands. It convinced the skeptics whose experience up to that time had been confined to inert or almost inert solutions, or to solutions that lost strength so rapidly as to be impracticable for any use.

Pond's Extract **Mouth Cleansing**

For keeping the mouth clean and wholesome, a particularly useful solution can be made by adding Pond's Extract—two tablespoonfuls—to a half glass of quite warm water; this should be used as a mouth wash and gargle every three or four hours. If the mouth or tongue is sore, pain and irritation will be soon relieved and corrected. Pond's Extract thus employed is an exceptionally pleasant and effective means of cleansing the mouth and sweetening the breath.

POND'S EXTRACT CO. New York and London



Our Hypodermic Syringes all have the new style HOLLOW Pistons which are filled with oil clear to the outer ends, so that the packing NEVER dries out, the Pistons NEVER work hard, the Syringes NEVER leak, and the oil being 5% carbolated, keeps the Syringes automatically aseptic without boiling, and, if broken, these Syringes can be repaired on the spot, by the physician himself.

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Grape Ola Concentrate has a pure fruit flavor. Its purity is vouched for by food experts. Its economy makes it a luxury of a rich home within the reach of all.

The Grape Ola Hy-ball is the most popular of the Grape Ola beverages. It is easier to make than lemonade. You just add four or five parts of water to Grape Ola Concentrate. No sugar is required. A dash of lemon juice sharpens the taste.

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A sample of Grape Ola Concentrate, sufficient to make seven or eight Grape Ola Hy-balls, will be mailed to any physician, resident doctor, superintendent, steward, or nurse of any hospital or sanitarium, upon receipt of twenty-five cents to cover mailing cost.

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12 West 22nd Street New York, N. Y.

1 QUART makes 30 Glasses

Were you to select but one electrical appliance for your office which would it be? Would it be the McIntosh No. 8 Polysine Generator? It might. Those who care to settle the matter are invited to look up the advertisement in this issue and write the manufacturers for a descriptive circular. As a small, simple and inexpensive equipment it promises well. We are told that it generates both the galvanic and the sinusoidal currents, and these in many variations. It has eight different modalities. It is built for operating on an alternating current.

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Not the least of agencies and methods designed for the treatment of physical ills is orificial surgery. While new to many, it has claimed attention on the part of certain others, in the profession, under the sponsorship of such able men as Pratt, whose clinics are remembered for the enthusiasm there shown by teacher and pupils, and for the results obtained.

That many of the ills afflicting humans are due to irritation of the sympathetic nerve at the orifices, chiefly the rectal, is the claim of those practicing this method of treating disease. By removing or correcting this irritation ailments far remote from the orifice are benefited or cured, it is said, and baffling cases, reducing

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Rarely longer than four months.

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Introductory offer of 100 for $1.90 post paid on receipt of price.

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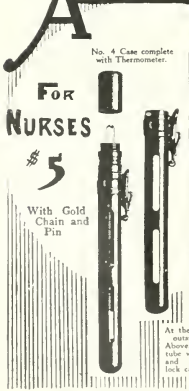
Always ready — *Always Sterilized*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the patient to a state of invalidism without definable cause, successfully attended.

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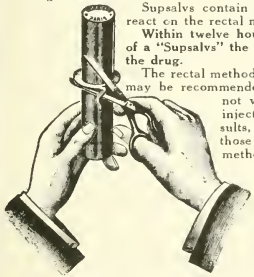
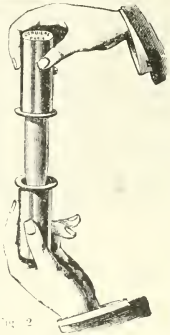
STABLE SUPPOSITORIES

(Of French origin) Containing Ehrlich's "606" (Professor Bagrov's Method)





Supsalvs contain no anaesthetic and do not react on the rectal mucous membrane.

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Fig. 2

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It is believed that by this combination of the research and technical skill of the General Electric Company and its Research Laboratory with the distribution and service facilities of the Victor Corporation, the new corporation will be able to respond in the highest degree to the ever increasing demands of the physicians and dental surgeons of the country, who find each year that X-ray devices become more and more important in their work and more and more useful in diagnosis and treatment.

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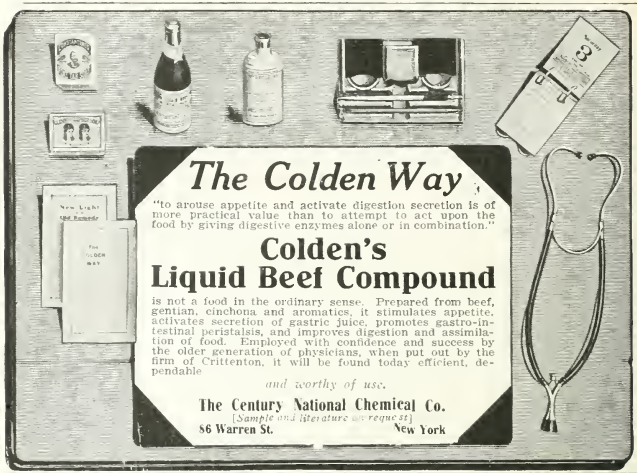

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"to arouse appetite and activate digestion secretion is of more practical value than to attempt to act upon the food by giving digestive enzymes alone or in combination."

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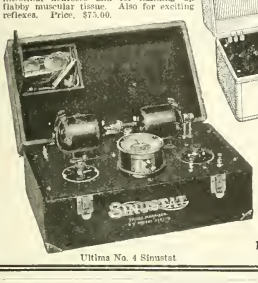

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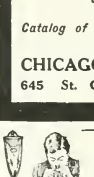

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Aside from its immediate discomfort and distress, is, in most cases, the forerunner of more serious conditions. A few hours of neglect usually mean the extension of the infection to the tonsils and deeper tissues, with the all too frequent development of such grave complications as rheumatism, cardiac diseases, and so on.

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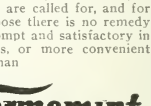

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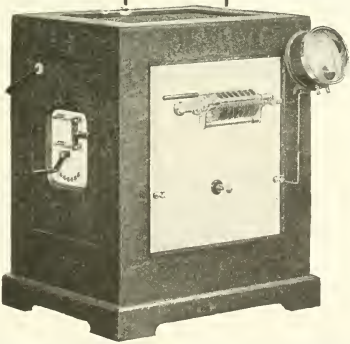

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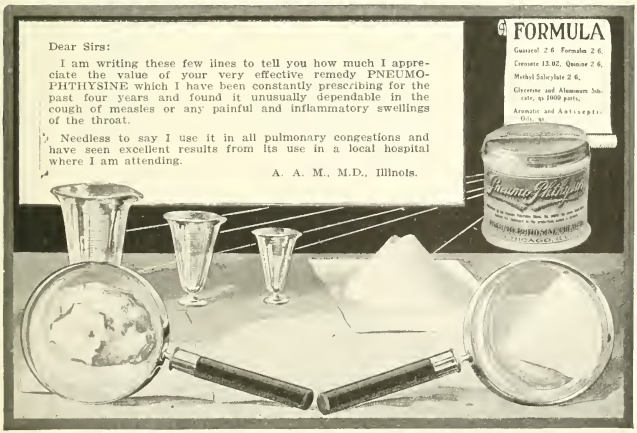
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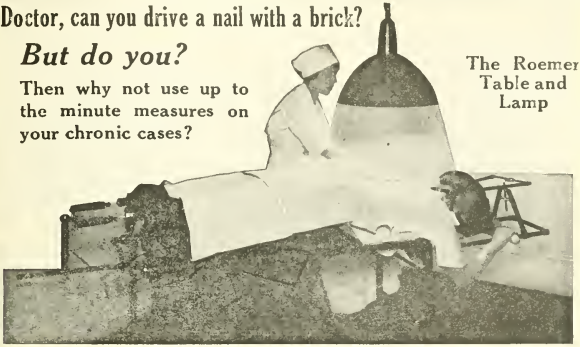

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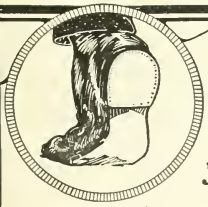

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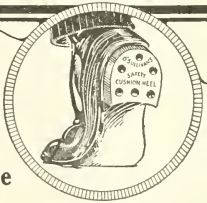

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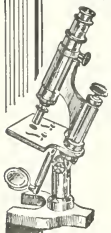

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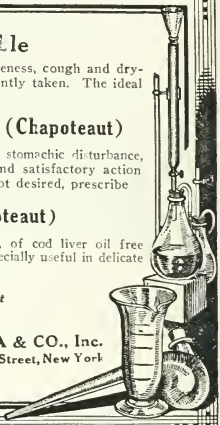

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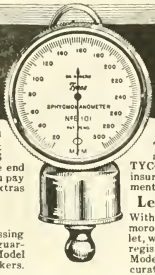

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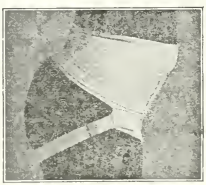

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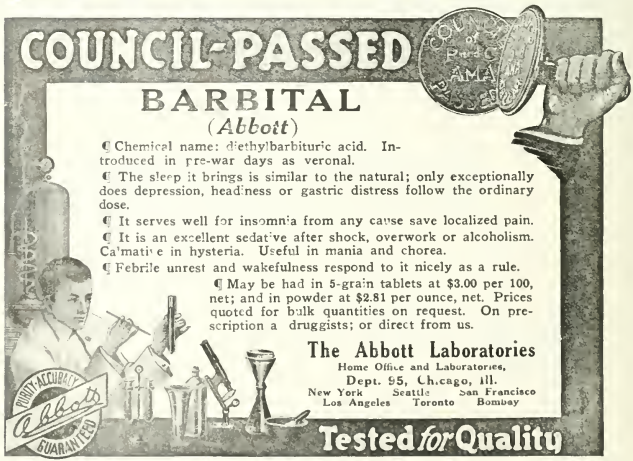

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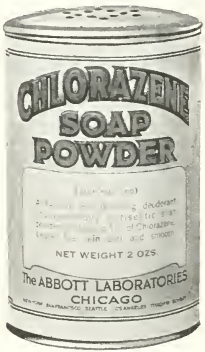

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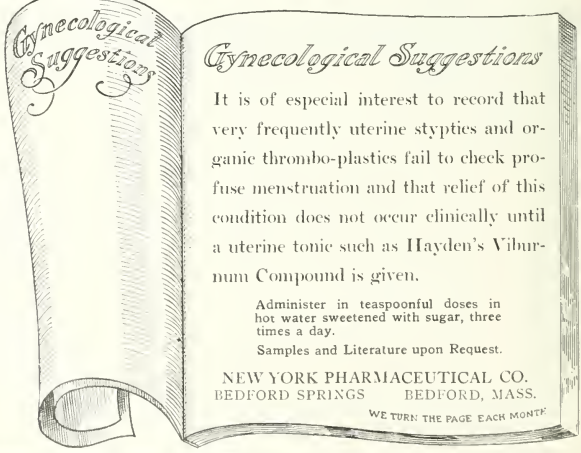
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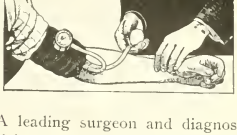

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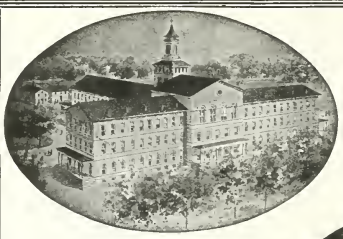

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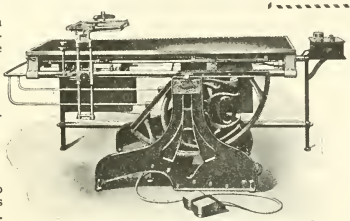

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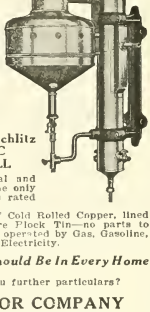

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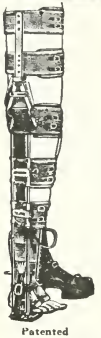

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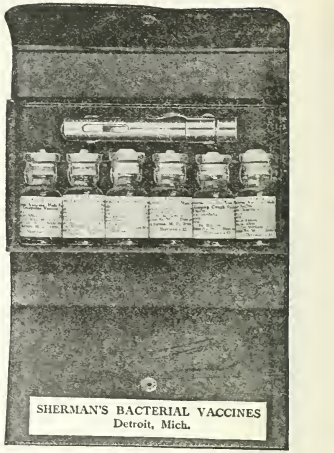

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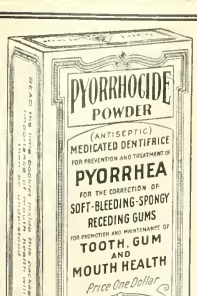

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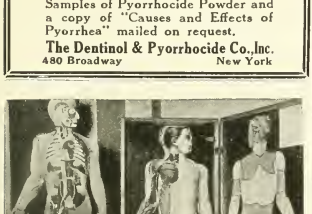

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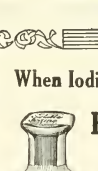

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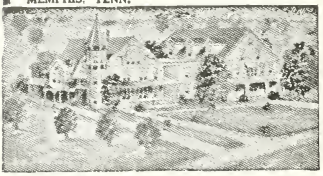

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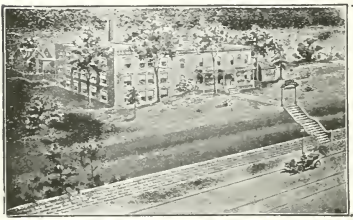

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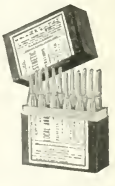

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